

608
T
223
H2X
NMAH

ANNUAL REPORT

3

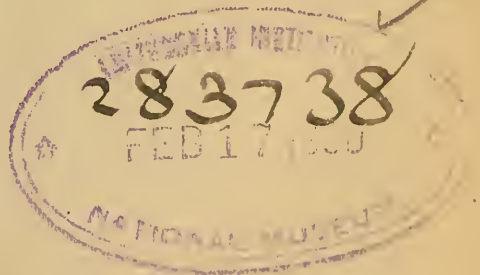
OF THE

COMMISSIONER OF PATENTS

FOR

THE YEAR 1871.

11
VOLUME I.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1872.

REPORT OF THE COMMISSIONER.

REPORT.

UNITED STATES PATENT OFFICE,

January 23, 1872.

*To the Senate and House of Representatives of the United States of America
in Congress assembled :*

The law requires the Commissioner of Patents to lay before Congress, in the month of January, annually, a report of all receipts and expenditures, a list of all patents granted, with name and subject-matter indexes, and a list of all patents extended during the preceding year, together with such other information of the condition of the Patent Office as may be useful to Congress or the public.

I submit the following report in compliance with this law :

1.—*Statement of moneys received.*

Amount received on applications for patents, reissues, extensions, caveats, disclaimers, appeals, and trade-marks	\$612,835 00
Amount received for copies of specifications, drawings, and other papers..	47,729 80
Amount received for recording assignments.....	18,151 66
Total	<u>678,716 46</u>

2.—*Statement of moneys expended.*

Amount paid for salaries	\$422,316 02
Amount paid for photographing.....	45,693 30
Amount paid for contingent and miscellaneous expenses, viz :	
Advertising	\$3,062 00
Stationery	17,204 41
Tracings, &c.....	472 85
Painting, glazing, varnishing, and glass.....	3,001 20
File-boxes	1,215 00
Furniture, carpeting, &c.....	10,827 05
Repairing furniture, carpenter's work, and fitting up cases in model-rooms	16,832 04
Plumbing and gas-fitting.....	5,752 59
English patents.....	1,382 23
Paper-hanging	1,057 49
Work on report	1,683 00
Preparing index of assignments.....	380 75
Refunding money paid by mistake	900 00
Hardware.....	3,992 70
Pay of temporary employés	16,187 60
Miscellaneous items, viz :	
Books for library, subscriptions to journals, freight, ice, wash- ing towels, fees of judges in appeal cases, withdrawals, pur- chase of horse and carriage, and livery	<u>11,031 41</u>
	94,082 32
	<u>562,091 64</u>

3.—*Statement of the balance in the Treasury of the United States on account of the patent fund.*

Amount to the credit of the patent fund January 1, 1871	\$643,355 21
Amount of receipts during the year 1871.....	678,716 46
Total	<u>1,322,071 67</u>
From which deduct expenditures for the year 1871.....	562,091 64
Balance on the 1st of January, 1872.....	<u><u>759,980 03</u></u>

4.—*Statement of the business of the office for the year 1871.*

Number of applications for patents during the year 1871	19,472
Number of patents issued, including reissues and designs.....	13,033
Number of applications for extensions of patents.....	204
Number of patents extended	158
Number of caveats filed during the year	3,366
Number of patents expired during the year.....	2,654
Number of patents allowed, but not issued for want of final fee.....	1,007
Number of applications for registering of trade-marks.....	505
Number of trade-marks registered	486

Of the patents granted there were to—

Citizens of the United States	12,511
Subjects of Great Britain	432
Subjects of France	30
Subjects of other foreign governments.....	60
	<u><u>13,033</u></u>

5.—*The patents issued to citizens of the United States were distributed among the citizens of the several States, Territories, &c., as follows :*

States, &c.	No. of patents.	Proportion of patents to population.
Alabama.....	29	One to 34,400 inhabitants.
Arkansas.....	13	" " 37,300 "
California.....	243	" " 2,300 "
Colorado Territory.....	15	" " 2,660 "
Connecticut.....	667	" " 806 "
Delaware.....	46	" " 2,717 "
District of Columbia.....	136	" " 970 "
Florida.....	10	" " 18,775 "
Georgia.....	73	" " 16,220 "
Idaho Territory.....	2	" " 7,500 "
Illinois.....	871	" " 2,916 "
Indiana.....	393	" " 4,277 "
Iowa.....	225	" " 5,387 "
Kansas.....	40	" " 9,110 "
Kentucky.....	125	" " 1,057 "
Louisiana.....	95	" " 7,655 "
Maine.....	197	" " 3,183 "
Maryland.....	240	" " 3,254 "
Massachusetts.....	1,386	" " 1,051 "
Michigan.....	383	" " 3,091 "
Minnesota.....	53	" " 8,302 "
Mississippi.....	48	" " 17,333 "
Missouri.....	248	" " 6,940 "
Montana Territory.....	2	" " 10,300 "
Nebraska.....	12	" " 10,250 "
Nevada.....	21	" " 2,125 "
New Hampshire.....	102	" " 3,121 "
New Jersey.....	496	" " 1,827 "
New Mexico Territory.....	1	" " 91,874 "
New York.....	2,954	" " 1,450 "
North Carolina.....	51	" " 21,000 "
Ohio.....	905	" " 2,945 "
Oregon.....	23	" " 4,000 "
Pennsylvania.....	1,543	" " 2,284 "
Rhode Island.....	184	" " 1,181 "
South Carolina.....	26	" " 27,139 "
Tennessee.....	104	" " 12,100 "
Texas.....	52	" " 15,742 "
Vermont.....	111	" " 3,000 "
Virginia.....	108	" " 11,342 "
Washington Territory.....	1	" " 23,955 "
West Virginia.....	42	" " 10,524 "
Wisconsin.....	227	" " 4,646 "
Wyoming Territory.....	3	" " 3,036 "
Persons in the Army and Navy.....	6	

6.—*Comparative statement of the business of the office from 1837 to 1871, inclusive.*

Year.	Applica- tions filed	Caveats filed.	Patents issued.	Cash received.	Cash expended.
1837.....			435	\$29,289 08	\$33,506 98
1838.....			520	42,123 54	37,402 10
1839.....			425	37,260 00	34,543 51
1840.....	765	228	473	38,056 51	39,020 67
1841.....	847	312	495	40,413 01	52,666 87
1842.....	761	391	517	36,505 68	31,241 48
1843.....	819	315	531	35,315 81	30,776 96
1844.....	1,045	380	502	42,509 26	36,244 73
1845.....	1,246	452	502	51,076 14	39,395 65
1846.....	1,272	448	619	50,264 16	46,158 71
1847.....	1,531	553	572	63,111 19	41,878 35
1848.....	1,628	607	660	67,576 69	58,905 84
1849.....	1,955	595	1,070	80,752 78	77,716 44
1850.....	2,193	602	995	86,927 05	80,100 95
1851.....	2,258	760	869	95,738 61	86,916 93
1852.....	2,639	996	1,020	112,656 34	95,916 91
1853.....	2,673	901	958	121,527 45	132,869 83
1854.....	3,324	868	1,902	163,789 84	167,146 32
1855.....	4,435	906	2,024	216,459 35	179,540 33
1856.....	4,960	1,024	2,502	192,588 02	199,931 02
1857.....	4,771	1,010	2,910	196,132 01	211,582 09
1858.....	5,364	934	3,710	203,716 16	193,193 74
1859.....	6,225	1,097	4,538	245,942 15	210,278 41
1860.....	7,653	1,084	4,819	256,352 59	252,820 80
1861.....	4,643	700	3,340	137,354 44	221,491 91
1862.....	5,038	824	3,521	215,754 99	182,810 39
1863.....	6,014	787	4,170	195,593 29	189,414 14
1864.....	6,932	1,063	5,020	240,919 98	229,868 00
1865.....	10,664	1,937	6,616	348,791 84	274,199 34
1866.....	15,269	2,723	9,450	495,665 38	361,724 28
1867.....	21,276	3,597	13,015	646,581 92	639,263 32
1868.....	20,420	3,705	13,373	681,565 86	628,679 77
1869.....	19,271	3,624	13,986	693,145 81	486,430 78
1870.....	19,171	3,273	13,321	669,456 76	557,149 19
1871.....	19,472	3,366	13,033	678,716 46	560,595 08

A plate is added showing graphically the business of the office from 1836 to the present time, in such form as to represent to the eye the comparative business of the different years.

The name and subject-matter indexes, giving an alphabetical list of patentees, with their places of residence, are herewith, as part of this report, submitted.

It will be seen by the statements of receipts and expenditures that the Office has received and placed in the Treasury of the United States during the year \$116,624.82 more than its entire expenditures. Of the items of expenditure, \$47,885.37 was paid to copyists of drawings, to the photo-lithographers, and for paper for the reproduction of drawings of patents issued prior to July 1, 1869. This is an expenditure not properly chargeable to the current expenses of the office, and would, if

added to the balance above stated, make the real excess of receipts over the current expenses for the year, \$164,510.19.

The reproduction of the past drawings is absolutely necessary to the proper management of the business of the Office, and is also a matter of great interest and profit to inventors and manufacturers. When once done, the expense of the work will cease, while the Office and the country will forever reap the benefits resulting from it. I would respectfully recommend that liberal appropriations be made for this work, that it may be completed as soon as possible.

The work of the Patent Office will necessarily increase to some extent, although the number of applications for patents may be substantially the same from year to year. Every application for a patent placed on file becomes a reference on which to reject subsequent applications for patents on the same improvements. Each year adds about twenty thousand to the number of these applications, which necessarily increases the clerical and examining labor of the Office.

The joint resolution of January 11, 1871, abolished the old form of annual report of the Patent Office. This resolution was passed in the belief that there was very little public demand for or interest felt in those reports. This belief, I think, was not well founded. There was a wasteful number of those reports printed, and they were, without doubt, injudiciously distributed. The consequence was that the larger portion of them fell into the hands of persons for whom they were not adapted, and soon found their way to rag-dealers and second-hand book-stores. The demand, however, of inventors, mechanics, manufacturers, and others, for accurate information of what is being done in the Patent Office is great and increasing. The old annual reports were unsatisfactory for two reasons: first, because they were always about two years behind date; and, second, because, in furnishing necessarily only ill-advised abstracts of the specifications and drawings, they seldom gave full information of what was covered by any patent, and consequently were very often misleading and deceptive.

These reports, however, with all their defects, were read and studied with great avidity by inventors and mechanics throughout the country, and the perusal of them has undoubtedly resulted in giving to the world very many valuable inventions and improvements. Unless a proper substitute is provided, I am of the opinion that their abolition will cause an abatement of interest in improvements and a diminution of the number of inventions. The inventive genius of one is stimulated and encouraged by seeing the results of the ingenuity of others. One man makes an important invention and obtains letters-patent therefor. If a correct knowledge of this patent can soon be placed in possession of five hundred other ingenious men, many valuable improvements will be suggested and patented, and the public will obtain a comparatively perfect machine, in place of the crude or less perfect production that may have come from the hands of the first inventor. The records of the

Patent Office will show that but comparatively few radical inventions have been practicable or profitable as first invented. It is only after the first thought has been embodied and presented to the world, and improvements to adapt it to the various uses for which it is calculated have been invented, that it becomes of most profit to the original inventor or most useful to the public. The value and importance of giving promptly a wide circulation to correct information of the character of all inventions and improvements patented can hardly be overestimated.

The object of the patent laws, as expressed in the Constitution, is, "to promote useful arts." This is done, in part, by giving inventors a legal monopoly of their inventions for a limited time; but it is of scarcely less importance that each inventor in the country should be promptly, and at small expense, furnished with a knowledge of what all the others are doing. Without such knowledge no one of them can pursue his investigations intelligently or economically. In any one of the useful arts, a knowledge of the present state of that art, of what others have done in it, is essential and necessary to any person engaged in improving it. To furnish this knowledge so far as it is made a matter of record by the Government, is clearly within the scope of the end sought by the establishment of the Patent Office.

In abolishing the old form of annual report, which was very unsatisfactory and expensive, it is questionable whether the law has provided an adequate substitute.

The joint resolution of January 11, 1871, provides as follows:

That the publication of the abstracts of specifications and of the engravings heretofore accompanying the annual report of the Commissioner of Patents be discontinued after the publication of that portion of the report for eighteen hundred and sixty-nine for which the plates have already been prepared; and that in lieu thereof, the Commissioner be authorized to have printed, for gratuitous distribution, not to exceed one hundred and fifty copies of the complete specifications and drawings of each patent subsequently issued, together with suitable indexes, to be issued from time to time, one copy to be placed for free public inspection in each capitol of every State and Territory; one for like purpose in the clerk's office of the district court of each judicial district of the United States, except when such offices are located in State or Territorial capitals, and one in the Library of Congress, which copies shall be taken and received in all courts as evidence of all matters therein contained, and shall be certified to under the hand of the Commissioner and seal of the Patent Office, and shall be taken and received in all courts as evidence; said copies not to be taken from said depositories for any other purpose than to be used as evidence; and the Commissioner of Patents is hereby authorized and directed to have printed such additional number of copies of specifications and drawings, certified as hereinbefore provided, at a price not to exceed the contract price for such drawings, for sale as may be warranted by the actual demand for the same; and the Commissioner is also hereby authorized to furnish a complete set of such specifications and drawings to any public library which will pay for binding the same into volumes to correspond with those in the Patent Office, and for the transportation of the same, and which shall also provide proper custody for the same, with convenient access for the public thereto, under such regulations as the Commissioner shall deem proper.

By this joint resolution one copy each of the specifications and drawings of all patents issued will be placed for free public inspection in

the capitol of every State and Territory, and one copy for like purpose in the clerk's office of the district court of each judicial district, where said clerk's office is not at the capital of any State or Territory. This will give only one copy each to most of the States and Territories, two copies each to a few of the States, and three copies each to a still less number. These State and district court libraries are open only during the business hours of the day, and while they will be very convenient and useful for the courts and for a limited number of attorneys, yet they will prove valueless as far as the great body of mechanics and inventors of the country are concerned. They are practically "sealed books" to nearly all of the class most interested in them, and whose perusal of them would most benefit the public. The resolution also provides that these specifications and drawings shall be furnished to such public libraries as will pay for binding and transportation. The binding will cost the Government about one hundred and thirty dollars a year for each library supplied under this resolution. This provision will exclude them from nearly all places except the larger cities. The only remaining provision for giving inventors, mechanics, and others any information of patented inventions is found in the clause that directs the Commissioner to have printed additional copies of specifications and drawings for sale to persons desiring to purchase; and subsequent legislation fixes the minimum price at which the specifications and drawings may be sold at ten cents per copy. This would make a full set, unbound, for one year, cost about thirteen hundred dollars, a sum which would be paid by very few.

Supposing that the larger portion of inventors, mechanics, manufacturers, and others, who are interested in the work of the Patent Office, would each feel a special interest only in the particular branch of industry in which he is engaged, the Office has caused a classified subject-matter index to be prepared, for free distribution. This index classifies the various subjects of inventions under one hundred and seventy-six different heads, according to the departments of industry to which they relate. By consulting this index persons are enabled to order the complete copies of all specifications and drawings of patents belonging to classes in which they feel special interest. This arrangement has been in operation only since the 1st of September last, and is not very generally understood. It results, however, in the sale of about one thousand copies per week. The sale would be largely increased by a reduction of the price to five cents per copy, which would pay the cost. I would recommend such reduction to persons subscribing for an entire class. For single copies the price should remain as it is. I would further recommend that where parties desire to purchase copies of the specifications and drawings of all the patents issued, the Commissioner be authorized to sell them at not more than five cents per copy. Still there would remain unsupplied a large demand for prompt, brief, and general information, in a compendious form, of all the patents issued and of all important deci-

sions and changes affecting the Office practice. To meet this demand to some extent, the Office is now publishing, under the authority of section 20 of the act of July 8, 1870, a Weekly Official Gazette, in which is given a name, index of the patentees, and a subject-matter index of all patents issued during the current week, a list of the designs patented and of the trade-marks registered, a notice of all pending applications for extensions and of extensions granted, a transcript of the claims of all patents issued, a notice of all disclaimers filed, all important decisions of the Commissioner of Patents, current decisions of the courts in trade-mark and patent causes, all changes in the rules of Office practice, modifications of patent law, special legislation affecting existing patents, and other official matter of interest to persons having business with the Patent Office. This is as far as the Commissioner feels authorized to go, under existing laws. All that seems necessary to enable this Official Gazette to supply the entire demand for information still unprovided for, is to authorize the Commissioner to add to it a well-considered abstract of the specifications and drawings upon which patents are issued. The subscription price of the Gazette has been fixed at five dollars per annum. It is believed that the addition of the abstract of the specifications and drawings will very soon so increase its circulation as to make it entirely self-sustaining without increasing the subscription price. Investigations and experiments are now being made that will very soon enable me to lay before the proper committees the additional cost of such additional work.

Under the provisions of section 14 of the patent act, I have sought to dispose of the models of rejected cases, by permitting regularly incorporated institutions of learning to select from among them such as they could make useful in teaching the practical sciences. The models thus selected have been carefully invoiced and receipted for by the institutions taking them, to be held subject to the order of the Commissioner of Patents. In this manner, about twelve thousand models of rejected cases have been disposed of, and a large number of colleges and polytechnic schools have been supplied with a valuable means of instruction. Any one of these models can be recalled, should it at any time be needed by the Office, or by the courts in the trial of patent causes. The act approved July 8, 1870, known as the Patent Act, has been carefully tested by fair trial, and in most particulars has been found sufficient and satisfactory. In some features, however, I would respectfully suggest that it should be amended.

Section 23 provides that every patent shall date as of a day not later than six months from the time the applicant or his agent was notified of its allowance. The same section further provides that the applicant may have, after said notice is sent him, six months in which to pay his final fee. The Office has not been in the habit of incurring the expense of having the drawings and specifications printed and prepared for issue until the final fees are paid, because, frequently the application is

abandoned after notice of allowance. It takes about two weeks to reproduce the drawings and specifications and prepare a case for issue. But applicants very often delay paying their final fees until the very last day of the six months allowed by statute for issuing the patent. The sections should be so amended as to require the final fees to be paid in at the Patent Office, or if the money be paid elsewhere, as provided in section 69, to require the proper evidence of such payment to be presented to the Office, at least two weeks prior to the latest date allowed for the patent to issue.

Section 24, considered in connection with section 30, gives to citizens of all governments the same rights and privileges before the Patent Office as are granted to citizens of the United States.

The spirit of this section is praiseworthy, and to the citizens of countries whose governments reciprocate with similar favors, it is unquestionably just. In other cases, however, the wisdom of this provision is by no means clear; citizens of the Dominion of Canada, under our general law, can obtain patents here on precisely the same terms as citizens of the United States; while the latter must have resided in Canada one year before they can apply for patents at the Canadian office.

The effect of this law, practically, is to exclude our citizens from obtaining patents in Canada; and often the result is disastrous to our inventors. The inventor, for instance, of a process or a machine for making a given article of manufacture, may suffer by the practice of the invention across the boundary line between the two countries by parties who furnish the manufactured article in our market at such rates as to be ruinous to the inventor. There can be no protection against this practice except in cases in which a patent can be obtained on the article of manufacture itself as well as upon the process or upon the machine by which it is made. But where the article itself is old, and therefore not patentable, the inventor of the new process or machine for making it is, by the means indicated, left practically without protection. It has been suggested in various quarters that, with view to furnishing the Canadian government a notice for modifying their practically prohibitory law, our own law should be so amended as to limit the rights granted by the sections above referred to, to the citizens of such foreign countries as accord to the citizens of the United States the same protection as is granted to their own citizens. I think, however, that the wiser course may be to open correspondence with the Canadian authorities, through the proper diplomatic channels, with view to representing the nature of the injustice to which our inventors are now subjected; and it is hoped that when the matter is thus brought home to the attention of the Canadian people, the proper remedy will at once be supplied. I withhold any special recommendation in the premises to await the result of such correspondence.

Section 25 provides that where a patent is first obtained in a foreign country, and afterwards here, the patent obtained here shall expire at

the same time as the foreign patent. This law is just and equitable in cases where the applicant is himself a citizen of a foreign country. In such cases his monopoly here should cease when it ceases at home. But in cases where the patentees are citizens of the United States, I see no reason for the rule. In most of the countries of Europe a patentee need not necessarily be an inventor. They will grant patents as well to the first man who *imports* an improvement as to the one who *invents* it. If the importer is the first to apply, he alone becomes the patentee. Hence it is frequently the case that persons other than the inventors will seize upon an invention the day it is patented here, and rush to Europe in advance of the inventors and secure to themselves the foreign patents. This fact often compels our inventors to secure their patents abroad first, if they would secure them at all. But under certain contingencies the foreign patents may expire in two, three, or five years. Under our law at present, their patents obtained here must expire at the same time.

Section 36, providing for the recording of assignments of patents, or territorial interests therein, I think, should be so amended as to provide in the same manner for the recording of licenses to manufacture or use under the patent. A patentee may cover the country all over with licenses to manufacture and sell under his patent, without having the records of the Office show that any portion of his patent, or any rights under it, have been conveyed. A person in purchasing an interest in a patent has no means but the veracity of the patentee for learning to what extent the patent is involved by licenses. For the protection of persons buying interests in patents all conveyances of any interests or rights of any kind should be made a matter of record, so that the Patent Office may be able to furnish reliable abstracts of title.

Section 48 provides that parties, except parties to interferences, if dissatisfied with the decision of this Commissioner, may appeal to the Supreme Court of the District of Columbia, sitting in banc. I see no good reason for making an exception of interference cases. If other cases are appealable, there is no reason why interference cases should not be. But I would respectfully suggest whether this whole matter of appeals from the Commissioner to the courts is not an anomaly in our Government. It is true that intricate questions of law are arising and being discussed daily in the Patent Office, and there is a show of propriety in permitting appeals to the courts on these questions of law; but I confess I can see no good reason for permitting such appeals on questions of fact. When the facts have been examined by a principal examiner, by the board of examiners-in-chief, and by the Commissioner in person, making three separate examinations by three separate tribunals, and all of these examiners supposed to be experts, and all agree as to what are the facts, an appeal to a court composed of able judges, but men not pretending to any expert knowledge of the subject-matter presented to them, it seems to me is not only without reason, but against reason. I would recommend that section 48 be repealed, and that in its

stead a section be introduced, authorizing appeals to the Supreme Court of the District of Columbia, sitting in banc, from the decisions of the Commissioner on questions of law; and that such appeals be in the nature of *writs of error*. If such amendment should be made, sections 49, 50, 51, and 52 should also be amended to correspond.

Section 53 provides that in applications for reissue the model and the drawing may be amended each by the other, but that neither shall be amended by the specification. This section works great hardship to inventors in many cases. I think it should be so amended as to authorize the Commissioner in person to permit, in applications for reissue either the specifications, drawings, or models to be amended so as to show what is already clearly shown in either one of them. The privileges granted by this section are, perhaps, more often misused than those of any other section in the patent law. The object of the section is to provide for the correction of errors that have arisen by inadvertence, accident, or mistake, and for such purpose it is very just and proper. Almost all applications under this section are for the purpose of obtaining broader claims than were originally asked for or granted. It not infrequently happens, however, that a patentee, finding that some other person has made a valuable improvement upon his invention, rushes back to the Office to secure a reissue of his patent in such form as to cover the later improvement. The Office, not knowing the facts in the case, and finding it possible so to construe the original application as to cover the improvement, the desired claim is granted, thereby giving the patentee a monopoly of what is really the invention of another. To guard against this species of fraud, I would suggest that section 53 be so amended as to require that a notice of all such applications for reissues as seek to enlarge the original claim be published in the Official Gazette for at least four weeks previous to the day set for examining the same; and that opposition be allowed as in extension cases.

It often happens that by a misapprehension of the law, or the facts, parties in good faith make joint application for a patent when only one was the real inventor; or the two were inventors of different parts so distinct as to be divisible, but the Office, not learning these facts in an *ex parte* examination, grants a patent to such parties jointly. Under the rulings of the courts such patents are worthless, giving no protection, and the inventor is without remedy. I would suggest that section 53 be further amended so as to make a misjoinder of parties in an application where no fraud was intended a good ground for reissue.

Under the law as it now stands, the courts hold that a patentee surrendering his patent for reissue, by such act of surrender relinquishes all his rights of action that may have accrued against infringers of the surrendered patent. This often works hardships and wrongs against inventors. I think it would be just to the patentee and equity to all concerned if the law could be so amended as to save rights of action in such cases where the claim infringed is substantially the same in the surrendered patent as in the reissue.

Section 64 requires that a notice of all applications for extension shall be published for at least sixty days in one paper in the city of Washington, and in other papers in the section of the country most interested adversely to the extension. There is no way in which the Office can determine what section of the country is most interested adversely to the extension of the patent. The practice has always been to advertise in the section where the patentee resides; but in a majority of cases probably that is not the location where those opposed to the extension would be most likely to see the notice. It very often happens that patents are extended before parties desiring to oppose know of the pendency of an application. There should be a single paper designated by law in which all notices of applications for extensions of patents are published. That would enable any person to learn of the pendency of such applications. I would recommend that section 64 be so amended as to require, in lieu of the publication now demanded, that all notices of applications for extensions be published in the Official Gazette of the Patent Office for at least six weeks prior to the day set for hearing. The Official Gazette is being taken by nearly every patent attorney and solicitor of patents in the country, and by very many inventors and manufacturers. Such publication would be certain in almost every case to reach all persons interested adversely to a proposed extension, and the saving thus effected in the expense of advertising would do something toward paying the cost of the Official Gazette. As the Patent Office is expected to be self-sustaining, it should be relieved of needless expense.

One-half of the fee in extension cases is by law required to be paid upon filing the application, and the balance upon granting the certificate of extension. The decision refusing or granting the extension is required to be made prior to the expiration of the original term of the patent. As the decision to extend carries the monopoly, the patentee frequently lets the certificate lie in the office for months and years, and sometimes for the whole term of the extension, without paying his final fee. If he needs the certificate of extension at any time to prosecute infringers, he then takes it; and as it bears even date with the expiration of the original term, it covers the whole term of the extension. If he should not need the certificate for such purpose, he may permit the extended term to expire and never pay his final fee. This fraud upon the Office should be provided against. I would suggest that section 66 be so amended as to authorize the Commissioner to withhold and cancel certificates of extension in cases where the final fees are not paid within thirty days of date of notice that extension has been granted.

Section 71 provides—

That any person who, by his own industry, genius, efforts, and expense, has invented or produced any new and original design for a manufacture, bust, statue, alto-relievo, or bas-relief; any new and original design for the printing of woolen, silk, cotton, or other fabrics; any new and original impression, ornament, pattern, print, or picture, to be printed, painted, cast, or otherwise placed on or worked into any article of manufacture; or any new, useful, and original shape or configuration of any article of man-

ufacture, the same not having been known or used by others before his invention or production thereof, or patented or described in any printed publication, may, upon payment of the duty required by law, and other due proceedings had the same as in case of inventions or discoveries, obtain a patent therefor.

I am clearly of the opinion that the present mode of patenting designs is radically wrong, injurious to real inventors and the public, and not calculated "to promote the useful arts." Under section 71, the Office issues patents for mere changes in form or color, without regard to construction, function, or utility. This class of patents has been to some extent subversive of the fundamental object of the patent law. Very many design patents, which cannot, under the law, be denied, are a fraud upon the public. A man applies for a patent on a cultivator, or hammer, or any other useful tool or device, and finding himself fully anticipated in every principle and useful feature of his invention, abandons his application and at once applies for a design patent for the same thing. This application he bases upon some peculiarity of form or color, having nothing whatever to do with the merits or demerits of the article itself; and not being anticipated in these respects, a patent is granted for the new design. The patent gives him no protection whatever, except as to the form or color upon which it is based. He, however, obtains from the Office the right to stamp the word "Patented" upon the article he is manufacturing, and thereby deceives the public, wrongs inventors, and brings patented articles into disrepute. Patents have greatly increased in popularity within the last few years, and manufacturers regard it as an advantage to have the right to affix the word "Patented" upon the products of their shops and factories. This fact has led to very great abuse of the privileges granted by the section authorizing patents for designs. The protection of the public, and of true inventors, alike demands such modifications of the law as to distinguish widely between designs and inventions. Designs are in the field of taste, beauty, ornamentation; while inventions have to do with utility, resulting from new constructions and combinations. Designs look to esthetic effects, inventions to economical productions. Each has its proper sphere, but so distinct that they ought not to overlap each other in the Office practice. Each should be protected, but by instruments and marks easily distinguishable by the public. I therefore recommend such modification of the patent act as will place designs upon substantially the same basis as trade-marks. If a design is new, let the applicant have a certificate of registry, with authority to mark his productions "Registered" instead of "Patented." The fact is that a very large proportion of designs are used merely and solely as trade-marks. A man adopts a peculiar form or color for his articles of manufacture, that they may be known as his in the market; that he and his place of business may be pointed out by the peculiarity of the color or conformation. Such a modification of the law, I believe, would furnish ample protection to designs, and, in fact, would enable the Office to issue

certificates of registration in many cases where, from public policy, it now refuses design patents. I earnestly recommend early legislation on this subject.

By section 77, the right to apply for registration of trade-marks is limited to citizens of the United States and to residents of such foreign countries as "by treaty or convention" afford similar privileges to citizens of the United States. This restriction excludes residents of Canada and England, and perhaps other countries, which by statute, in the absence of "treaty or convention," afford the right of registry to citizens of the United States. I therefore recommend that this section be amended by striking out the limiting phrase, "by treaty or convention."

The discussion that has been going on in England during the past year, on the comparative merits of the English and American patent systems, has excited considerable interest in this country. The English system finds a few honorable and able advocates here, but a very large majority of inventors, and others intelligent upon the subject, seem to be ardently attached to our own system. The American system secures a preliminary examination by experts, on the question of novelty, and the issue of the patent is made dependent upon the result of such examination. Consequently, the patent, when issued, carries with it a presumptive right to its claims, and immediately has a value in the market; the amount of value depending principally upon the importance of the invention covered by the claims. The strength of the presumption in favor of the patent will, of course, depend upon the reputation the Patent Office may have for making honest and thorough preliminary examinations.

In England, patents are granted to every applicant, without any inquiry into the question of novelty or usefulness, and the patent is utterly without value until the patentee has, by litigation in the courts, established the fact that the invention to which it relates is new and useful. Unless an inventor is able to pay court costs, and liberal fees to attorneys and experts, he is much richer without a patent than with one. A poor inventor, under the English system, is entirely at the mercy of capitalists, and must, in general, assign a controlling interest in his patent to secure the means to establish even a presumption in its favor.

The objections urged against the American system, so far as there is any validity at all in them, are chargeable, I believe, against the mode in which the system is organized and operated, rather than against the system itself. The more thorough and searching the preliminary examination, the more valuable will be the patent when issued. The better the organization of the Office to secure such examinations, the greater will be judicial and public confidence in the validity of patents. To secure the best possible organization for this purpose is a matter of the highest consideration. That the present organization of the examining corps has some radical defects, cannot be denied. That these defects can, in a great measure be remedied, I feel very confident. On this subject, I propose

soon to address a communication to the Honorable Secretary of the Interior, and, if it meets his approbation, it will probably be forwarded to Congress, with such suggestions as he may be pleased to make.

Protection to inventors is encouragement to every branch of industry. Such protection has already placed our country far in advance of all others in the development and adaptation of labor-saving machinery. In addition to this class of wealth which inventors have contributed to the country, they have paid, directly, the entire cost of our patent system, and three-fourths of a million dollars in excess. They do not now ask that the fees shall be reduced, nor that the excess shall be returned, but they do demand that the organization of the Office shall be such as to do better work, and that the force be made sufficient to do it more promptly.

On these matters I would recommend cautious but liberal legislation. Respectfully submitted.

M. D. LEGGETT,
Commissioner of Patents.

PATENTEES AND PATENTS.

ALPHABETICAL LIST

OF

PATENTEES FOR THE YEAR 1871.

No.	Name, residence, and invention or discovery.	Date.
119,490	Aab, George, assignor to self and John McAndrews, Brooklyn, N. Y. Water-governor for steam-engines.....	Oct. 3, 1871
115,555	Abbe, John R., Providence, R. I. Bolt-heading machine.....	June 6, 1871
114,081	Abbey, Frederick J., and James H. Foster, Chicago, Ill. Breech-loading fire-arm.....	April 25, 1871
121,307	Abbot, James, Fitchburgh, Mass. Washing-machines.....	Nov. 28, 1871
110,617	Abbot, Theodore T., and John A. V. Smith, said Abbott assignor to said Smith, Manchester, N. H. Flier for spinning-machine.....	Jan. 3, 1871
117,851	Abbott, Charles E., Malden, Mass., and Rufus S. Merrill, Hyde Park, Mass. Pencil-sheath.....	Aug. 8, 1871
111,163	Abbott, George, <i>et al.</i> (See Bowden, William, assignor.) Abbott, Levi, Lewiston, Me., and Joseph A. Sherburne, Boston, Mass., assignors to selves and Earl W. Johnson. Grain-drier.....	Jan. 24, 1871
112,764	Abbott, Nathan B., Brooklyn, N. Y. Composition for pavement.....	Mar. 21, 1871
114,899	Abbott, Samuel M., Wilmington, Ill. Windmill.....	May 16, 1871
117,237	Abbott, Sewall L., Deering, Me. Countersink.....	July 25, 1871
113,961	Abbott, Warren N., assignor to self and Isaac H. Wood, New York, N. Y. Chimney-cowl.....	April 25, 1871
118,326	Abeel, Charles S., Marshalltown, Iowa. Harness tug-buckle.....	Aug. 22, 1871
	Abel, Franklin B., and Joab Morss. (See Morss & Abel.)	
	Abel, George, and John Pedder. (See Pedder & Abel.)	
	Same.....same.	
	Abell, Henry E., and William H. Akins. (See Akins & Abell.)	
117,238	Abell, Otis, Witoka, Minn. Straw-carrier for thrashing-machine.....	July 25, 1871
4,810	Abendroth, John, New York, N. Y. Cooking-stove..... (Design.)	April 18, 1871
119,071	Abrahams, Abraham, Syracuse, N. Y. Chair and cradle combined.....	Sept. 19, 1871
	Accelerating Fire-arms Company. (See Lyman, Azel S., assignor.) (Disclaimer.)	
122,096	Acee, Fielding Wallace, Columbus, Ga. Musical notation.....	Dec. 26, 1871
112,668	Acheson, William, assignor to Charles L. Fitzhugh, Pittsburgh, Pa. Roll for forming horse-shoe blank.....	Mar. 14, 1871
119,492	Ackart, David, Schaghticoke, N. Y. Preserving the color of dried fruit. (Antedated Sept. 18, 1871).....	Oct. 3, 1871
112,524	Ackenback, John R., Saddle River, N. J. Rein-holder.....	Mar. 14, 1871
114,032	Ackerman, Orin, Carthage, N. Y. Support for camera-box.....	April 25, 1871
110,886	Adams, Albert Q., Wallingford, Vt. Snow-shovel.....	Jan. 10, 1871
114,743	Adams, Alfred, Chagrin Falls, Ohio. Paper-bag machine.....	May 16, 1871
113,001	Adams, August H., Piqua, Ohio. Flood-gate.....	Mar. 28, 1871
	Adams, Augustus. (See Dryden, W. A. & C. E., assignors.) (Reissue.)	
	Adams, Calvin, Pittsburgh, Pa. Keeper for right and left hand door-lock. (Extension.).....	Feb. 23, 1871
121,226	Adams, Charles, Philadelphia, Pa. Process for the manufacture of iron.....	Nov. 28, 1871
121,568	Adams, Frank, Middlebury, Ohio. Whip-socket.....	Dec. 5, 1871
	Adams, Frank F. (See Walker, George S., assignor.)	
114,083	Adams, Henry W., Philadelphia, Pa. Vacuum-engine.....	April 25, 1871
115,672	Same.....Steam-engine.....	June 6, 1871
116,407	Same.....same.....	June 27, 1871
116,531	Adams, Henry W., Philadelphia, Pa., and Steuben T. Bacon, Boston, Mass., said Adams assignor to said Bacon. Drier.....	July 4, 1871
116,532	Same.....same.....	July 4, 1871
113,612	Adams, Isaac, jr., Boston, Mass. Electro-plating with nickel.....	April 11, 1871
116,658	Same.....Nickel-plating.....	July 4, 1871
117,499	Adams, Isaac H., Montana, Iowa. Washing-machine.....	Aug. 1, 1871
114,510	Adams, James T., assignor to Joel R. Leidy, Washington, D. C. Permutation-lock.....	May 9, 1871
110,618	Adams, John, Greencastle, Ind. Mole-trap.....	Jan. 3, 1871
	Adams, John. (See Baker, Hayden M., assignor.)	
110,815	Adams, John, Birmingham, Pa. Glass lamp.....	Jan. 10, 1871
	Adams, John C., <i>et al.</i> (See Fanning & Nugent, assignors.)	
	Adams, John P. (See Goddard, Kingston, assignor)..... (Reissue.)	
	Same..... (See Wilkinson, George, assignor)..... (Design.)	
118,420	Adams, Joseph A., Brooklyn, N. Y. Treating forms of type, engraved blocks, &c.....	Aug. 29, 1871
4,732	Adams, Joseph P., and George Hyde, Whitney's Point, N. Y. Stone-drag. (Design).....	Mar. 28, 1871
115,264	Adams, Jndson, and Warren A. Tolman, Richmond, Ind. Machine for winding bobbin. (Antedated May 19, 1871).....	May 30, 1871
116,002	Adams, Robert, England. Spring hinge for doors.....	June 20, 1871
111,600	Adams, Samuel, Michigan Bluff, Cal. Hydraulic turn-pipe.....	Feb. 7, 1871
111,798	Adams, Thomas, assignor to John D. Adams, Hudson City, N. J. Chewing-gum.....	Feb. 14, 1871
116,390	Adams, William, Scotland. Machine for dressing stone.....	June 27, 1871
115,010	Adams, William C., and William B. Mayhew, West Tisbury, Mass. Folding-settee.....	May 23, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,385	Adams, William J., Grand Rapids, Mich. Machine for shearing metal. (Ante-dated April 22, 1871)	May 2, 1871
118,574	Adamson, James Hazel, South Australia. Harvester.	Aug. 29, 1871
117,134	Adamson, William, Philadelphia, Pa. Paper-stock.	July 18, 1871
117,135	Same..... Extracting resin and gum from wood.	July 18, 1871
117,136	Same..... Process of obtaining paper-stock from wood, &c.	July 18, 1871
	Same..... Apparatus and process for treating animal and vegetable fiber.	Sept. 5, 1871
	Same..... (See Simonin & Coffin, assignors) (Reissue.)	
	Same..... (See Simonin, Charles F. A., assignor) (Three cases.)	
117,352	Adamson, William, and Charles F. A. Simonin, assignors to William A. damson, Philadelphia, Pa. Process of obtaining vegetablefiber.	Aug. 8, 1871
119,000	Same..... Treating flesh, offal, &c.	Sept. 19, 1871
111,296	Adgate, Edwin H., Mittineague, Mass. Adjustable reamer	Jan. 31, 1871
116,910	Adgate, Joseph J., assignor to self and Raymond Welles, Stevensville, N. Y. Wagon-brake	July 11, 1871
111,297	Adolphas, James M., Philadelphia, Pa. Fastening for door-knob roses. (Ante-dated Jan. 21, 1871)	Jan. 31, 1871
116,391	Adt, John, assignor to the Judd Manufacturing Company, New Haven, Conn. Twine-cutter	June 27, 1871
116,911	Same..... Twine-holder	July 11, 1871
120,225	Adt, John B., assignor to self and August Hoen, Baltimore, Md. Printing-press	Oct. 24, 1871
4,451	Ager, Wilson, Washington, D. C. Process for decorticating grain. (Division A, reissue)	July 4, 1871
4,452	Same..... Machine for decorticating grain (Division B, reissue.)	July 4, 1871
	Same..... Machine for cleaning rice (Extension)	Sept. 14, 1871
4,579	Same..... Machine for cleaning and scouring rice, coffee, and other grains. (Reissue)	Oct. 10, 1871
113,834	Agger, Peter, Cincinnati, Ohio. Bed-bottom	Sept. 12, 1871
111,505	Agnew, Niven, Canada. Coffee-pot	Feb. 7, 1871
116,136	Aguayo, José M., Boston, Mass. Tobacco-cutter	June 20, 1871
	Agur, Luke. (See Noble, Oscar W., assignor.)	
111,298	Ahrens, Christopher, and Frank Kauffman, Cincinnati, Ohio. Steam-generator	Jan. 31, 1871
111,896	Aiken, Frank H., Franklin, N. H. Machine for cutting and mitering printers' rules	Feb. 21, 1871
121,036	Same..... Stereotype	Nov. 21, 1871
113,478	Aikman, David, Canada. Manufacture of peat-fuel	April 11, 1871
112,006	Aitchison, James M., Omar, N. Y. Corn-planter	Feb. 21, 1871
116,392	Akerstein, Johan F., Chicago, Ill. Furniture-tip	June 27, 1871
115,673	Akin, Jonas Sely, Rye Patch, Nev. Furnace for roasting ores of the precious metals	June 6, 1871
114,386	Akins, William H., and Henry E. Abell, Brooklyn, N. Y. Padlock	May 2, 1871
	Albany Dental Plate Company. (See Hyatt, John W., jr., and Isaiah S., assignors.)	
	Albany Frear Stone Company. (See Brown, Frederic W., assignor.)	
4,623	Albee, George Sumner, Hopkinton, Mass. Heater for milk, &c. (Design)	Feb. 7, 1871
4,338	Albert, Joseph, Bavaria. Printing photographs (Reissue)	April 11, 1871
119,292	Albert, William, Brooklyn, N. Y. Flag-bayards	Sept. 26, 1871
110,816	Albertson, Albert, Jersey City, N. J. Lamp	Jan. 10, 1871
115,409	Same..... Manufacture of ice	May 30, 1871
112,525	Albertson, George A., New York, N. Y. Dry-dock	Mar. 14, 1871
118,893	Albertson, James M., New London, Conn. Horse-power	Sept. 12, 1871
119,731	Same..... Combined cotton-press and horse-power	Oct. 10, 1871
112,669	Albrecht, August, Philadelphia, Pa. Clothes-wringer	Mar. 14, 1871
	Albrecht, Joseph, and Arthur Barbarin. (See Barbarin & Albrecht.)	
114,900	Albright, Joseph, Midway, Tenn. Molding-machine	May 16, 1871
116,252	Albright, Joshua, Pleasant View, Me. Gun-lock	June 27, 1871
120,015	Albro, Charles E., Fulton, N. Y. Lathe-chuck	Oct. 17, 1871
113,002	Alcorn, James, assignor to George R. Kelso, Charlestown, Mass. Apparatus for operating railway-switches	Mar. 23, 1871
116,912	Alden, Charles, Newburgh, N. Y. Fruit-jelly	July 11, 1871
121,569	Same..... Process and apparatus for drying and preserving animal and vegetable substances	Dec. 5, 1871
4,287	Alden, Charles, assignor of part interest to Alden Fruit-Preserving Company, Newburgh, N. Y. Treating fruits to dry, saccharify, and preserve them (Reissue)	Mar. 7, 1871
4,592	Same..... Treating vegetable and animal substances so as to dry and preserve them (Reissue)	Oct. 17, 1871
114,901	Alden, David Alonzo, Malden, Mass. Preparation of tobacco for chewing	May 16, 1871
113,238	Alden, Elbridge G., Cambridge, Mass. Machine for making boxes	April 4, 1871
	Alden, Rinaldo, and Henry Davis. (See Davis & Alden.)	
	Alden, Rinaldo, et al. (See Deming & Alden.)	
	Alden, Timothy, deceased, by Henry W. Alden, executor, New York, N. Y. Type-setting and distributing machine (Extension)	Sept. 12, 1871
119,491	Alderfer, Henry D., Grater's Ford, Pa. Latch for gates	Oct. 3, 1871
121,742	Aldom, Edward, New York, N. Y. Spring-perch for bird-cages	Dec. 12, 1871
114,084	Aldrich, George H., New York, N. Y. Passenger-recorder	April 25, 1871
115,891	Aldrich, James T., New York, N. Y. Passenger-recorder for vehicles	June 13, 1871
	Aldrich, Robert, et al. (See Pitts, Aldrich & Marble.)	
119,732	Aldrich, William, Proctorsville, Vt., and Alfred F. Spaulding, Northfield, Vt., assignors to Cyrus Wakefield, Calvin S. Greenwood, and Levi Heywood. Device for pressing chair-seats into their frames	Oct. 10, 1871
113,862	Aldrick, Hosea P., Boston, Mass. Waxed-thread sewing-machine	April 25, 1871
116,789	Aldridge, George, Henderson City, Ky. Fruit-gatherer	July 11, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,379	Aldridge, Hiram, assignor through mesne assignments to Cornelius Anltman, Elizabethtown, N. Mex. Horse-power..... (Reissue) ..	May 16, 1871
110,659	Ale, Ezra, assignor to self and J. Blake Walters, Clearfield, Pa. Fire-escape... Alexander & Mason. (See Mason, James M., assignor.)	July 4, 1871
112,670	Alexander, Granville W., Chicago, Ill. Railroad-station indicator.....	Mar. 14, 1871
119,684	Alexander, Isaac H., Newfield, N. Y. Tug for harness.....	Oct. 10, 1871
121,978	Alexander, James H., Geneva, N. Y. Faucet.....	Dec. 19, 1871
119,685	Alexander, John F., Shelley, N. C. Steam and air engine.....	Oct. 10, 1871
112,671	Alexander, Joseph Bell, Washington, D. C. Railroad-station indicator.....	Mar. 14, 1871
117,957	Alexander, Levi H., Gloucester, Mass. Fishing-net.....	Aug. 15, 1871
115,410	Alexander, Solomon A., Sunbury, Pa. Spring-adjuster.....	May 30, 1871
119,293	Alexandre, Arthur, New York, N. Y. Handle-strap for traveling-bags.....	Sept. 26, 1871
114,511	Alford, William D., Cuyahoga Falls, Ohio. Pipe-coupling.....	May 9, 1871
119,259	Same.....Molding pipe.....	Sept. 26, 1871
121,266	Same.....Casting female screws.....	Nov. 28, 1871
115,265	Algeo, Charles C., Pittsburgh, Pa. Fire-place fender.....	May 30, 1871
121,073	Same.....same.....	Nov. 21, 1871
5,007	Algeo, William G., Rochester, Pa. Coffin..... (Design) ..	June 20, 1871
5,209	Same.....Coffin-end..... (Design) ..	Aug. 22, 1871
5,314	Same.....Coffin-top..... (Design) ..	Oct. 17, 1871
115,802	Alger, Francis, Boston, Mass. Steam-carriage for common roads. (Antedated May 29, 1871) ..	June 13, 1871
117,958	Same.....Method of attaching wheels to axles. (Antedated Aug. 3, 1871) ..	Aug. 13, 1871
114,387	Aling, John, and Cornelius Blom, sr. (See Blom & Aling.) Allebaugh, William, and Joseph M. Cuffell, assignors to Jacob C. Slemmer, Norristown, Pa. Binder for sewing-machines.....	May 2, 1871
113,239	Allegretti, Ignazio, Philadelphia, Pa. Manner of packing and conveying ice-cream, water-ices, &c.....	April 4, 1871
113,829	Allen, Albert F., Providence, R. I. Automatic relief-valve.....	April 18, 1871
117,853	Same.....(See Cooke, James C., assignor)..... (Two cases.) (Reissue.)	Aug. 8, 1871
120,925	Same.....Hose-pipe valve.....	Nov. 14, 1871
122,097	Same.....Automatic relief-valve.....	Dec. 26, 1871
116,660	Allen, Albert F., et al. (See Caswell, William A., assignor.) Allen, Almon N., and Rodney H. Dewey, Pittsfield, Mass. Magnetic electric gas-lighting apparatus.....	July 4, 1871
119,492	Same.....Electro-magnetic gas-lighting apparatus.....	Oct. 3, 1871
120,226	Same.....Automatic gas-lighter.....	Oct. 24, 1871
120,476	Same.....Lubricator for steam valves and pistons.....	Oct. 31, 1871
121,308	Same.....Electric gas-lighter.....	Nov. 28, 1871
112,104	Allen, Arthur M., New York, N. Y. Toy-propeller.....	Feb. 21, 1871
120,016	Allen, Benjamin C. (See Congdon, Joseph H., assignor.) Allen, Campbell, Albany, N. Y. Heating and preparing stone for pavements, &c.....	Oct. 17, 1871
111,027	Allen, Charles, Hartford, Conn. Hot-air furnace.....	Jan. 17, 1871
117,137	Allen, Charles B., Philadelphia, Pa. Boiler-rivet machine.....	July 18, 1871
111,714	Allen, Daniel R., Cumberland, Me. Seat for vehicles.....	Feb. 14, 1871
114,248	Allen, Darwin D., Adams, Mass. Weighing-scale. (Antedated April 27, 1871) ..	May 2, 1871
112,526	Allen, Elias B., Charles O. Allen, and Alonzo P. Small, Augusta, Me. Machine for coiling wire.....	Mar. 14, 1871
110,619	Allen, Elijah C., Deerfield, Mass. Stone-drag.....	Jan. 3, 1871
112,203	Allen, Francis E., Keene, N. H. Jewelers' combined caliper and poising-tool ..	Feb. 28, 1871
121,074	Allen, Frank S., and Charles F. Ritchel, New York, N. Y. Boring-machine ..	Nov. 21, 1871
121,743	Same.....Bolt and nut threading machine.....	Dec. 12, 1871
116,253	Allen, George P., Woodbury, Conn. Apparatus for dividing powders.....	June 27, 1871
122,143	Allen, Hassan U., North Bennington, Vt. Fruit-jar.....	Dec. 26, 1871
113,963	Allen, Hiram J., Arkadelphia, Ark. Breech-loading cannon.....	April 25, 1871
116,661	Allen, Ira, Manchester, N. Y. Bag-holder.....	July 4, 1871
121,145	Allen, James M., Washington, D. C. Railway-car seat.....	Nov. 21, 1871
111,897	Allen, John F., Harlem, N. Y. Governor valve-connection.....	Feb. 21, 1871
112,003	Allen, John F., Tremont, N. Y. Refining iron, reducing ore, &c.....	Feb. 21, 1871
113,613	Same.....New York, N. Y. Steam-generator.....	April 11, 1871
121,744	Allen, John F., Mott Haven, N. Y. Oiling-apparatus for crank-pins.....	Dec. 12, 1871
118,177	Allen, John M., Marion, Mass. Manufacture of paper and paper-pulp.....	Aug. 22, 1871
111,601	Allen, John P., Springfield, Ohio. Water-wheel.....	Feb. 7, 1871
114,512	Same.....(See Banta, William E., assignor.) Allen, John P., assignor to self and R. M. Dalby, Springfield, Ohio. Lathe.....	May 9, 1871
116,913	Allen, John P., and Henry Croft, Springfield, Ohio. Combination of watch-key, swivel, and hook.....	July 11, 1871
117,138	Allen, Joseph D., and D. Chaplin Nutting. (See Nutting & Allen.) Allen, Joseph H., Wadsworth, Nev. Welt-trimmer for boots and shoes.....	July 18, 1871
116,914	Allen, Joshua G., Philadelphia, Pa. Railroad-car heater.....	July 11, 1871
117,029	Allen, Judson, assignor of one-half interest to William H. Crotser, Everett, Mo. Fruit-drier.....	July 18, 1871
116,790	Allen, King P., Homer, Mich. Hub-centering machine and spoke-guide.....	July 11, 1871
115,803	Allen, Levi O., Gardiner, Me. Milking-stool.....	June 13, 1871
111,506	Allen, Nicholas J., and James C. Moody, Brunswick, Me. Adjustable shuttle-binder.....	Feb. 7, 1871
119,686	Allen, Richard N., Pittsford, Vt. Sewing-machine treadle.....	Oct. 10, 1871
	Allen, Roger N., and Hubert R. Ives. (See Scott, George, assignor.) Allen, Samuel S., deceased, by E. D. Buckman and Samuel A. Sisson, executors, Bristol, Pa. Harvester..... (Extension) ..	April 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,582	Allen, Samuel S., deceased, by E. D. Buckman and Samuel A. Sisson, executors, assignors to J. Russell Parsons, Bristol, Pa. Harvester. (Reissue) ..	Oct. 10, 1871
	Allen, Sidney. (See French, Samuel, assignor.)	
110,887	Allen, Thomas W., Waterbury, Conn. Charger for shot-pouch	Jan. 10, 1871
111,102	Same	Jan. 24, 1871
121,570	Allen, Truman H., Corry, Pa. Mode of attaching springs to vehicles.	Dec. 5, 1871
116,791	Allen, William, Worcester, Mass. Lawn-mower	July 11, 1871
115,674	Allen, William, and John Wesley Bond, Saint Paul, Minn. Hand-carriage.	June 6, 1871
	Allen, William H., and Oliver H. Perry. (See Perry & Allen.)	
115,556	Allen, William R., Stockton, N. J. Whip-socket.	June 6, 1871
	Allerton, George M., and Burritt M. Hotchkiss. (See Hotchkiss & Allerton, assignors.)	
	Alles, John. (See Lane, George W., assignor.)	
4,836	Alling, Fred. D., Rochester, N. Y. Inkstand. (Design) ..	April 25, 1871
111,799	Allison, Asa H., Charlottesville, Ind. Sulky-attachment for breaking-plow ..	Feb. 14, 1871
119,552	Allison, Jesse H., Charlottesville, Ind. Latch for gates and doors	Oct. 3, 1871
111,299	Allison, William C., assignor to W. C. Allison & Sons, Philadelphia, Pa. Machine for welding tubes	Jan. 31, 1871
118,503	Allonas, Joseph, and William Bauman, Mansfield, Ohio. Revolving cylinder-engine	Aug. 29, 1871
112,765	Allyn, John H., Whitesborough, N. Y. Bed-bottom	Mar. 21, 1871
115,557	Almqvist, August W., and Franz W. Ofeldt, New York, N. Y. Dry gas-meter. .	June 6, 1871
121,037	Almqvist, August W., and Eugene G. Conradson, Brooklyn, N. Y. Refrigerator. .	Nov. 21, 1871
111,800	Alms, Herman H., Kansas City, Mo. Tobacco-press. (Antedated Feb. 3, 1871) .	Feb. 14, 1871
116,915	Almy, George F., Toledo, Ohio. Spoke-sawing machine	July 11, 1871
114,085	Almy, Ira, and Sereno A. Drake, Covert, N. Y. Plane-iron.	April 25, 1871
	Almy, James F. (See Phillips, Phineas W., assignor.)	
	Same	
118,504	Alsip, Frank, North McGregor, Iowa. Brick-machine.	Aug. 29, 1871
120,607	Same. Shovel-handle.	Nov. 7, 1871
120,608	Same. Construction of arches.	Nov. 7, 1871
112,004	Alsop, Henry, Elkhart City, Ill. Towel-holder	Feb. 21, 1871
	Alsover, Cyrus B., and Jacob D. Seipel. (See Seipel & Alsover.)	
119,810	Altenburg, Augustus, and George J. Lambrix, assignors through mesne assignments to Charles Spark, Augustus Altenburg, and Charles L. Massing, Buffalo, N. Y. Apparatus for turning leaves of music	Oct. 10, 1871
111,715	Altener, Theodore, Philadelphia, Pa. Compass-joint	Feb. 14, 1871
117,716	Alter, Jacob S., Carlisle, Pa. Attachment for sewing-machines.	Aug. 8, 1871
4,556	Same. Leavenworth, Kans. Attachment for sewing-machines. (Re-issue) ..	Sept. 19, 1871
120,017	Althouse, Isaac, Columbus, Ohio. Power-hammer.	Oct. 17, 1871
114,249	Althouse, John A., New Harmony, Ind. Millstone-balance	May 2, 1871
112,672	Altick, William, and Franklin P. Grimes, assignors to Wilson & Grimes, Dayton, Ohio. Fence	Mar. 14, 1871
120,926	Altman, David, Nashville, Tenn. Corn-planter	Nov. 14, 1871
111,300	Altman, Elijah, Hamilton, Miss. Well-auger	Jan. 31, 1871
111,716	Altman, Moritz, Baltimore, Md. Leather to resemble cloth.	Feb. 14, 1871
116,003	Altstatt, Parker H., Clarke County, Ind. Cotton-planter	June 20, 1871
110,720	Alvord, D. S., Austinburgh, Ohio, and Charles D. Hollis, Ashtabula, Ohio. Seed-ing-machine.	Jan. 3, 1871
111,602	Alvord, Edward E., Salt River, Mich. Coating brick, wood, and other surfaces on walls, &c.	Feb. 7, 1871
	Amberg, William A. (See Thompson, Edward H., assignor.)	
118,575	Ambler, Augustin I., Washington, D. C. Apparatus for generating gas from petroleum, &c.	Aug. 29, 1871
117,360	Ambler, Stephen F., Monitor, Cal. Furnace for roasting ores	July 25, 1871
121,571	Ambrose, Anson R., Chicago, Ill. Wagon and sleigh box. (Antedated Nov. 20, 1871) ..	Dec. 5, 1871
114,744	Ambuhl, Jacob, Morristown, N. J. Apparatus for carburizing hydrogen gas. .	May 16, 1871
116,004	Amer, William, Janesville, Wis. Attachment for vacuum-cup	June 20, 1871
	American Bolt Company. (See Wright, Sheffield H., assignor.)	
	American Button-hole Overseaming and Sewing-Machine Company. (See Reh-fuss, George, assignor) ..	
	American Chair-Seat Company. (See Watkins, Gardner A., assignor.)	
	American Coal Gas Light Improvement Company. (See Jones, Edward, as-signor.)	
	Same. (See Gibson, William, assignor.)	
	American Fertilizing Company. (See Fales, Levi S., assignor.)	
	American Gas-Screen Manufacturing Company. (See Duffee, Edward, assignor.)	
	American Horse-Nail Company. (See Perkins, Charles H., assignor.)	
	American Paper-Box Machine Company. (See Heyl, Henry R., assignor.)	
	American Peat Fuel Company. (See Hulbert, Edwin J., assignor.)	
	Same. (See Aubin, Aime N. N., assignor.)	
	American Seal-Lock Company. (See Bohannan, Wilson, assignor.)	
	Same. (See Brooks & Everett, assignors.)	
	Ames, F. Le Grand, and John Harwood. (See Harwood & Ames.)	
118,092	Ames, Gustavus, New York, N. Y. Beating-engine for preparation of paper-pulp. .	Aug. 15, 1871
	Ames, James T. (See Burton, James Henry, assignor)	
	Ames, John, Lansingburgh, N. Y. Brush	Mar. 7, 1871
114,086	Ames, John, jr., assignor to John Ames, Lansingburgh, N. Y. Paint-brush.	April 25, 1871
110,948	Ames, John H., Stamford, Conn. Padlock	Jan. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,005	Ames, Joseph R., Chest Township, Pa. Whiffletree.....	June 20, 1871
118,505	Ames, Oakley N., Haydenville, Mass. Compression-cock	Aug. 29, 1871
115,266	Amery, Arthur, New York, N. Y. Railroad-car starter	May 20, 1871
120,018	Ammons, Starus S., Winona, Miss. Horse-power.....	Oct. 17, 1871
121,309	Amos, Isaac, Bel Air, Md. Fastening for window-blinds	Nov. 28, 1871
112,204	Anderhub, Andreas, assignor to John Bayer, New York, N. Y. Target-alarm	Feb. 28, 1871
113,240	Anders, George L., assignor to E. B. Welch, Boston, Mass. Magneto-electric dial-telegraph	April 4, 1871
117,239	Same.....Printing-telegraph apparatus	July 25, 1871
113,777	Anderson, Alban, assignor to Homer and Euclid Anderson, Peekskill, N. Y. Brick-machine	Sept. 12, 1871
115,411	Anderson, Alexander, and Leslie Johnston, Canada. Attachment to the cutting-apparatus of harvesters	May 30, 1871
115,924	Anderson, Anton George, Hoboken, N. J. Composition pavement	June 13, 1871
112,105	Anderson, Charles, Montana, Iowa. Sad and crimping iron	Feb. 28, 1871
115,804	Anderson, Charles Lewis, and Alfred Bogardus, Yonkers, N. Y. Refrigerator	June 13, 1871
112,673	Anderson, Charles R., Saint Louis, Mo. Door-check	Mar. 14, 1871
117,959	Anderson, Edward A., Danville, Tex. Broom	Aug. 15, 1871
122,098	Anderson, Frank, Peekskill, N. Y. Perforating-machine	Dec. 26, 1871
118,506	Anderson, James, Allegheny, Pa. Pressure-gauge for water-locks of stoves, ranges, &c	Aug. 29, 1871
111,801	Anderson, James H., assignor to Thomas Marston, jr., and Walter L. and Clarence I. Peck, Terre Haute, Ind. Tying brooms and brushes	Feb. 14, 1871
113,000	Same.....Tying brooms and brushes. (Antedated Feb. 14, 1871).....	Aug. 22, 1871
5,210	Anderson, John, Brooklyn, N. Y. Horse sun-bonnet	Nov. 7, 1871
120,694	Anderson, John A., Lambertville, N. J. Railway switch and signal	Aug. 15, 1871
118,093	Anderson, John C., and Allen W. Benson, Saginaw, Mich. Running-gear for carriages	April 18, 1871
117,589	Anderson, John Price, Philadelphia, Pa. Machine for slicing candy, &c.....	Aug. 1, 1871
113,830	Anderson, John R., New York, N. Y. Portable roller for moving heavy bodies	April 18, 1871
117,717	Same.....Brooklyn, N. Y. Fog-horn.....	Aug. 8, 1871
116,916	Anderson, Joseph R., and Phillip C. Harlan, Freeport, Pa. Pneumatic hoisting-machine	July 11, 1871
	Anderson, Lauritz, and Daniel Saylor. (See Saylor & Anderson.)	
	Anderson, R. G. (See Pennington, Thomas D., assignor.)	
113,719	Anderson, Robert J., New York, N. Y. Whip-rack	April 18, 1871
110,817	Anderson, Samuel J., Cazenovia, N. Y. Stove-pipe shelf	Jan. 10, 1871
114,902	Anderson, Valerius D., Kewanee, Ill. Steam-radiator	May 16, 1871
114,903	Same.....Pipe-coupling	May 16, 1871
112,309	Anderson, William, San Francisco, Cal. Hose-sprinkler	Mar. 7, 1871
120,927	Andres, Hiram, assignor to self and Stephen R. Andres, Troy, N. Y. Adjustable weight for scales	Nov. 14, 1871
	Andres, Stephen R., and Hiram. (See Sampson, Elnathan, assignor.)	
	Andreas, Joel. (See Kelly, Lewis, assignor.)	
115,675	Andrew, Matthew, Colony of Victoria. Attaching knobs to their spindles	June 6, 1871
117,854	Same.....Tap for oil-caus.....	Aug. 8, 1871
118,669	Same.....New York, N. Y. Gas-illuminator.....	Sept. 5, 1871
119,294	Andrew, William W., La Porte, Ind. Land-roller. (Antedated Sept. 22, 1871)	Sept. 26, 1871
117,030	Andrews, Albert J., Linden, Mich. Evaporator for concentrating liquids and cooling food for stock, &c.....	July 18, 1871
119,001	Andrews, Charles N., Saint Louis, Mo. Cotton-gin.....	Sept. 19, 1871
113,964	Andrews, Chauncey, Paterson, N. J. Machine for making skewers	April 25, 1871
	Andrews, Elisha W., et al. (See Edison, Thomas A., assignor.)	
111,164	Andrews, Emanuel, Williamsport, Pa. Saw	Jan. 24, 1871
112,883	Same.....Saw-mill	Mar. 21, 1871
	Andrews, Ephraim H., and Dwight Hyde. (See Hyde & Andrews.)	
	Andrews, Ezra R. (See Clague & Randall, assignors.)	
114,087	Andrews, Ezra R., Robert B. Randall, and William H. Clague, Rochester, N. Y. Paper-feeding machine	April 25, 1871
116,254	Andrews, Francis, Galesburgh, Ill. Horse hay-rake	June 27, 1871
120,019	Andrews, George L., assignor to self and E. B. Welch, Boston, Mass. Double-transmitting printing-telegraph	Oct. 17, 1871
117,960	Andrews, Joseph E., Nashua, N. H. Pipe-coupling	Aug. 15, 1871
111,804	Andrews, Reuben H., Washington, D. C. Device for labeling cigars.....	Feb. 14, 1871
111,507	Andrews, Thomas A., jr., Philadelphia, Pa. Spark-arrester.....	Feb. 7, 1871
115,558	Andrews, William A., Columbus, Ohio. Smoothing-iron	June 6, 1871
111,028	Andrews, William H., assignor to Burton Mallory, New Haven, Conn. Reversible knob-latch	Jan. 17, 1871
116,135	Andrews, William J., East Machias, Me. Compound for the cure of spavin	June 20, 1871
114,388	Androvatt, Jacob W., and Truman W. Joline, Tottenville, N. Y. Kitchen-knife	May 2, 1871
113,129	Andrus, Henry M., and Jehiel H. Cleveland, North Bay, N. Y. Clothes-rack	Mar. 28, 1871
113,128	Andrus, John H., New York, N. Y. Skin under-garments.....	Mar. 28, 1871
	Andrus, John H., et al. (See Fanning & Nugent, assignors.)	
	Andrus, Leroy, et al. (See Lippold, Henry, assignor.)	
121,979	Ansell, John Henry, Pontiac, Mich. Steam-boiler. (Antedated Dec. 5, 1871)	Dec. 19, 1871
117,590	Anesley, George W., assignor to self and Samuel P. Wormley, Marengo Township, Mich. Pruning-shears	Aug. 1, 1871
113,480	Anheuser, William, Saint Louis, Mo. Pitching barrels.....	April 11, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,802	Annan, Charles F., assignor to self and Herbert S. Merrill, Boston, Mass. Paper-bag machine	Feb. 14, 1871
111,803	Same.....same.....	Feb. 14, 1871
121,267	Ansley, John and George W., Marengo, Mich. Cultivator	Nov. 28, 1871
118,670	Anthony, H. Mark, Providence, R. I. Sealing-can for preserving fruit.....	Sept. 5, 1871
110,818	Anthony, Orrin A., Mayfield, N. Y. Lifting-jack	Jan. 10, 1871
114,088	Anthony, Sherman E., Stillwater, N. Y. Potato-digger	April 25, 1871
116,255	Antisdell, Josiah F., George H. Cronk, and John H. Haviland, Janesville, Wis. Steam-boiler	June 27, 1871
118,671	Antrim, Mary E., Philadelphia, Pa. Attachment for sewing-machines	Sept. 5, 1871
111,301	Antrun, John, and Elwood B. Mullin, Franklin, Ohio. Fodder-stan ^d	Jan. 31, 1871
5,096	Appel, Daniel, Cincinnati, Ohio. Eccentric-yoke. (Design)	July 11, 1871
119,493	Appleby, Stephen V., Spottswood, N. J. Grain-drier	Oct. 3, 1871
114,089	Applegate, Joseph F., and Casper Feiock, New Albany, Ind. Coopers' croze.....	April 25, 1871
112,205	Applegate, Vincent, Marline P. Jacobs, and Samuel F. Roby, Harrison County, Ind. Coopers' croze	Feb. 28, 1871
	Archer & Pancoast Manufacturing Company. (See Deavs, Charles, assignor.) Same	(See Deavs, Charles, assignor.) (Two cases.)
120,845	Archibald, Edward A., Methuen, Mass. Hub for carriage wheels	Nov. 14, 1871
	Archibald, Judson A. (See Van Orman, Oliver, assignor.)	
113,831	Archibald, Samuel G., England. Machine for balling oakum	April 18, 1871
117,240	Arden, Henry, assignor to John C. Smith, Brooklyn N. Y. Record-book	July 25, 1871
120,179	Same.....Apparatus for discharging ordnance. (Antedated Oct. 11, 1871) ..	Oct. 24, 1871
	Arents, Albert, and Winfield S. Keys. (See Keys & Arents.)	
115,559	Arey, John P., Georgetown, Colo. Furnace for roasting ores	June 6, 1871
117,718	Same.....Feeder for ore-roasting furnaces.....	Aug. 8, 1871
116,792	Argall, James, Mineral Point, Wis. Steam water-heater.....	July 11, 1871
118,327	Arkell, James, assignor to self, and Benjamin and Adam Smith, Canajoharie, F. Y. Paper-cutting machine	Aug. 22, 1871
122,099	Arkell, James, assignor to Arkell & Smiths, Canajoharie, N. Y. Paper-bag machine	Dec. 26, 1871
117,139	Armbruster, Jacob H., assignor to self and George Booth & Co., Philadelphia, Pa. Manufacture of coated sheet-iron trays, platters, &c.	July 18, 1871
119,733	Armerling, Charles C. G., Philadelphia, Pa. Vegetable-cutter	Oct. 10, 1871
113,965	Armour, John M., Syracuse, N. Y. Knitting-machine	April 25, 1871
4,664	Arms, James C., Northampton, Mass. Pocket-book tip	Feb. 21, 1871
113,720	Armstrong, Aaron R., and Charles S. Dudley, Nashua, N. H. Smoothing and ruffle iron	April 18, 1871
118,507	Armstrong, Augustus B., Dorset, Vt. Cheese-vat.....	Aug. 29, 1871
119,102	Armstrong, Charles, Chicago, Ill. Guide for sewing-machines.....	Sept. 19, 1871
115,267	Armstrong, Daniel, Chicago, Ill. Machines for making wrought-nails	May 30, 1871
121,837	Armstrong, Elvin S., Jerseyville, Ill. Bee-hive	Dec. 12, 1871
120,477	Armstrong, John, assignor of one-half interest to Marion G. Decrow, Newark, Ohio. Hold-back for shafts of vehicles	Oct. 31, 1871
120,020	Armstrong, John James, Kings County, N. Y. Insect-trap	Oct. 17, 1871
122,310	Armstrong, Joseph G., New Brunswick, N. J. Locomotive spark-arrester ..	Mar. 7, 1871
112,005	Armstrong, Peter Edward, Philadelphia, Pa. Paper-bag machine... (Design) ..	Feb. 21, 1871
	Arnd, Henry, and Albert Pries. (See Pries & Arnd.)	
113,479	Arndt, Albert, F. R., Cleveland, Ohio. Ticket-holder	April 11, 1871
119,103	Arndt, Daniel, and Dillingham C. Washington, Cleveland, Ohio. Railway-car brake	Sept. 19, 1871
121,980	Arndt, Daniel, Cleveland, Ohio. Door-securer.....	Dec. 19, 1871
111,603	Arnett, William D., Denver, Colo. Driving-power for locomotives	Feb. 7, 1871
117,031	Same.....Locomotive	July 18, 1871
120,180	Same.....same.....	Oct. 24, 1871
118,178	Arnold, Benjamin, East Greenwich, R. I. Twist-drill.....	Aug. 22, 1871
118,179	Same.....Machine for slotting the shanks of twist-drills.....	Aug. 22, 1871
	Arnold, Constable & Co. (See Stone, James Edward, assignor)..... (Design.)	
117,032	Arnold, David G., Winona, Mich. Relishing-machine.....	July 18, 1871
	Arnold, Franklin, and George Steck. (See Steck & Arnold.)	
	Arnold, Joseph, and David F. Skinner. (See Skinner & Arnold.)	
112,674	Arnold, Lauren B., Lansing, N. Y. Ventilating milk-can	Mar. 14, 1871
111,898	Arnold, Levi, Belchertown, Mass. Fish-hook.....	Feb. 21, 1871
117,719	Same.....Fish-hook holder.....	Aug. 8, 1871
118,894	Arnold, Roberson, assignor to self, William B. Wellons, and Exum B. Britt, Suffolk, Va. Bee-hive	Sept. 12, 1871
119,958	Arnold, Satterlee, Philmont, N. Y. Machine for washing and fulling cloth.....	Oct. 17, 1871
116,006	Arnold, Stephen D., assignor to P. & F. Corbin, New Britain, Conn. Fastening for meeting rails of sashes	June 20, 1871
111,418	Arnold, Thomas, Petroleum Centre, Pa. Tube-holder	Jan. 31, 1871
	Arnold, Thomas F., and Henry E. Webster. (See Fifield, Levi W., assignor.)	
120,809	Arnold, William, Pawtucket, R. I. Washing-machine.....	Nov. 14, 1871
114,513	Aronson, Joseph N., New York, N. Y. Street lamp and lantern	May 9, 1871
117,961	Arrington, William J., Louisville, Ga. Cultivator.....	Aug. 15, 1871
117,962	Same.....Baling-press.....	Aug. 15, 1871
	Artificial Limb Manufacturing Company. (See Burd & Denniston, assignors.)	
110,721	Arley, Jeremiah S., Danville, Pa. Meat-cutter	Jan. 3, 1871
	Arvin, John N., and Joseph M. Whitmore. (See Whitmore & Arvin.)	
	Asbahr, Hans, and Frederick P. L. Reimers. (See Reimers & Asbahr.)	
120,478	Asbill, Lewis M., Edgefield County, S. C. Cotton-pickers' velocipede.....	Oct. 31, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Ascough, William, and Charles H. Miller. (<i>See Miller & Ascough.</i>)	
	Same.....same.	
114,745	Ash, Charles C., Manor Hill, Pa. Car-replacer	May 16, 1871
119,911	Ash, James, Sterling, Ill. Stove-pipe damper.....	Oct. 17, 1871
	Ashcroft, John, <i>et al.</i> (<i>See Patterson, J. Willard, assignor.</i>)	
113,241	Ashcroft, John, assignor to Sarah Jane Ashcroft, New York, N. Y. Steam cooking-range	April 4, 1871
113,832	Same.....Brooklyn, N. Y. Apparatus and process for treating coffee.....	April 18, 1871
4,479	Ashcroft, John, assignor to Sarah Jane Ashcroft, Brooklyn, N. Y. Process for treating coffee.....(Division A, reissue) ..	July 25, 1871
4,480	Same.....Treating coffee.....(Division B, reissue) ..	July 25, 1871
119,959	Same.....Coffee-roaster	Oct. 17, 1871
120,410	Same.....Apparatus for maturing raw or green coffee.....	Oct. 31, 1871
117,500	Ashe, Edward D., England. Lamp-chimney.....	Aug. 1, 1871
122,209	Ashman, Alfred B., and Alfred H. Newell, Cincinnati, Ohio. Sewer-trap and catch-basin.....	Dec. 26, 1871
	Ashman, John, and William C. Wise. (<i>See Wise & Ashman.</i>)	
120,928	Ashton, Ezra J., Utica, Ind. Churn-dasher	Nov. 14, 1871
	Ashton, John. (<i>See Dutton, George W., assignor.</i>)	
121,838	Ashworth, John, assignor to George L. Davis, John A. Wiley, Joseph M. Stone, George G. Davis, Joseph H. Stone, and James H. Davis, North Andover, Mass. Loom shuttle-box mechanism	Dec. 12, 1871
115,805	Aspinall, Walter A., Brooklyn, N. Y. Medicinal preparation of iron.....	June 13, 1871
4,388	Aspinwall, L. Augustus, Albany, N. Y. Machine for husking corn..(Reissue) ..	May 23, 1871
119,687	Same.....Potato-planter. (Antedated Sept. 30, 1871) ..	Oct. 10, 1871
	Assenheimer, Henry. (<i>See Remer, John A., assignor.</i>)	
114,250	Assmann, Albert, Rahway, N. J. Washing-machine.....	May 2, 1871
120,227	Asthalter, Henry J., Pittsburgh, Pa. Paper-file	Oct. 24, 1871
119,295	Atha, Simeon, West Liberty, Ohio. Hub for wagon-wheels	Sept. 26, 1871
117,241	Atherton, Abel T., Lowell, Mass. Tanning compound.....	July 25, 1871
119,912	Atherton, Abel T., assignor to self and Fitz Henry Winter, Lowell, Mass. Fruit-can tongs	Oct. 17, 1871
	Atkins, Jearum, Mokena, Ill. Rake to grain-harvesters.....(Extension) ..	April 1, 1871
116,793	Atkins, Thomas, and Henry Drew, Cincinnati, Ohio. Musical instrument	July 11, 1871
120,609	Atkinson, Alexander P., Vermont, Ill. Counting-register	Nov. 7, 1871
112,311	Atkinson, George, San Francisco, Cal. Tool for carriage-makers' use.....	Mar. 7, 1881
111,899	Atkinson, James S., Ormsby Borough, Pa. Machine for cutting screws	Feb. 21, 1871
4,915	Atterbury, James S. and Thomas B., Pittsburgh, Pa. Jelly-glass....(Design) ..	May 16, 1871
4,773	Atterbury, Thomas B., Birmingham, Pa. Bottle.....(Design) ..	April 11, 1871
120,610	Atwater, Anson A., Trumansburgh, N. Y. Railway-car coupling.....	Nov. 7, 1871
116,007	Atwater, John B., Geneva, Ill. Steam-boiler.....	June 20, 1871
	Atwood, Charles R., <i>et al.</i> (<i>See Nimmo, George, assignor.</i>).....(Reissue.) ..	
114,090	Atwood, Edward T., Minerva, Ohio. Flux for refining iron and steel	April 25, 1871
120,411	Atwood, George V., Mount Hope, Ala. Rotary steam-engine	Oct. 31, 1871
	Atwood, Leonard. (<i>See Mosman, Daniel F., assignor.</i>)	
117,140	Atwood, Leonard, assignor to George W. Brown, New York, N. Y. Elevator for hods.....	July 18, 1871
117,141	Atwood, Leonard, assignor to P. H. Walker, New York, N. Y. Valve-gear for engines	July 18, 1871
113,833	Atwood, Lewis J., assignor to the Plume and Atwood Manufacturing Company, Waterbury, Conn. Lamp-burner.....	April 18, 1871
118,421	Same.....Lamp.....	Aug. 29, 1871
117,720	Atycro, Isaac, North Fairfield, Ohio. Wash-boiler.....	Aug. 8, 1871
117,591	Aubin, Aime Nicholas Napoleon, assignor through mesne assignments to the American Peat Fuel Company, Portland, Conn. Peat-wringers	Aug. 1, 1871
	Aubin, Aime N. N., and Edwin J. Hulbert. (<i>See Hulbert & Aubin.</i>) (Three cases.)	
115,412	Auchey, Ephraim D., assignor to self and Francis J. Martin, Manheim, Pa. Flour-bolt	May 30, 1871
121,572	Auchincloss, William S., Wilmington, Del. Railway-car axle-box.....	Dec. 5, 1871
121,310	Aufderheide, Frederick W., Saint Louis, Mo. Bin for warehouses	Nov. 28, 1871
115,560	Aughinbaugh, Henry E., Harrisburgh, Pa. Mechanical fly-brush	June 6, 1871
121,839	Aull, Adam A. and John A., Bellefontaine, Ohio. Baking-oven	Dec. 12, 1871
	Aultman, Cornelius. (<i>See Aldridge, Hiram, assignor.</i>)	
	Austin, Algernon S. (<i>See George, Levi F., assignor.</i>)	
118,422	Austin, Clark L., Lawrence, Mass. Spindle and bearing for spinning-frames... ..	Aug. 29, 1871
120,361	Austin, Emmet R., assignor to N. L. Austin & Co., Norwalk, Conn. Furnace and furnace-bar	Oct. 31, 1871
118,672	Austin, Ephraim H., Scott's Hill, Tenn. Grain-mill.....	Sept. 5, 1871
4,746	Austin, Roger S., Wallingford, Conn. Hitching-post cap.....(Design) ..	April 4, 1871
113,614	Austin, William, and William Obdyke, Philadelphia, Pa. Pipe-elbow.....	April 11, 1871
	Austin, William, jr., <i>et al.</i> (<i>See Rost, Gottlieb, assignor.</i>)	
5,097	Autenrieth, Charles, assignor through mesne assignments to Thomas Heath, Philadelphia, Pa. Center-piece for ceilings.....(Design) ..	July 11, 1871
119,104	Autenrieth, Jacob, Newark, N. J. Extinguishing fires.....	Sept. 19, 1871
120,611	Aveling, Thomas, England. Locomotive and traction engine.....	Nov. 7, 1871
116,794	Averill, Benjamin F., assignor to self and Samuel James Gifford, Dunkirk, N. Y. Blacking-brush	July 11, 1871
121,146	Averill, Damon R., New Centreville, N. Y. Manufacture of paint.....	Nov. 21, 1871
121,311	Same.....Compound for filling or stuffing surfaces to be painted or varnished	Nov. 28, 1871
121,478	Same.....Manufacture of paint	Dec. 5, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,147	Averill, Damon R., New Centreville, N. Y., and Josiah Browning, Newburgh, Ohio. Manufacture of paint.	Nov. 21, 1871
	Avery, Benjamin F. (<i>See</i> Wiard, Edward, assignor.)	
119,443	Avery, Charles H., and John S. Everitt. (<i>See</i> Everitt & Avery)..(Two cases.)	Oct. 3, 1871
	Avery, Cyrus, Erie, Pa. Revolving refrigerator.	
114,191	Avery, Cyrus, and Jerome W. Wetmore. (<i>See</i> Wetmore & Avery.)	April 25, 1871
	Avery, Ezra W. and Adaline A., assignors to A. W. Avery & Co., Plymouth, N. H. Glove.	
	Avery, Florello P., and Gilbert E. Palen. (<i>See</i> Palen & Avery.)	
119,296	Avery, Horace W., Westfield, Mass. Whip-stock.	Sept. 26, 1871
112,527	Avery, John P., Norwich, Conn. Garden-hoe. (Antedated Feb. 28, 1871).....	Mar. 14, 1871
120,021	Avery, Samuel, Phoenix, N. Y. Coffin.	Oct. 17, 1871
	Avis, Joseph W., and Augustus H. Tait. (<i>See</i> Tait & Avis.) (Two cases.) (Reissue.)	
116,662	Axe, William R., Rockton, Ill. Paint-mill.	July 4, 1871
117,963	Ayers, Charles, Farmington Centre, Wis. Fence-post.	Aug. 15, 1871
	Aylesworth, G. Miller. (<i>See</i> Hughes, Elisha, assignor.)	
112,766	Aylworth, George H., Brighton, Ill. Pressing and baling hay.	Mar. 21, 1871
120,612	Same..... Cotton and hay press.	Nov. 7, 1871
	Ayres, Charles N., <i>et al.</i> (<i>See</i> Coons, Matthias P., assignor.)	
	Ayres, Frazee, and Sylvanus Decker. (<i>See</i> Decker & Ayres.)	
114,092	Ayres, Jared A., Hartford, Conn. Apparatus for elevating water.	April 25, 1871
114,251	Ayres, Sidney K., assignor to self and Peter Flickner, Dellton, Wis. Grain-separator.	May 2, 1881
118,423	Ayres, William G. and Seth L. Cole, assignor to Henry A. Snowden, Brooklyn, N. Y. Paper-trimming machine.	Aug. 29, 1871
120,228	Ayres, Zephaniah S., New York, N. Y. Girder.	Oct. 24, 1871
111,717	Baade, William F., Buffalo, N. Y. Receptacle for stationery articles, &c.	Feb. 14, 1871
117,964	Same..... Slate.	Aug. 15, 1871
118,180	Same..... Reading and drawing cases.	Aug. 22, 1871
110,620	Babbitt, Asher S., assignor to Babbit, Hinckley & Co., Keeseville, N. Y. Seeding-machine. (Antedated Dec. 29, 1870)	Jan. 3, 1871
111,165	Same..... Earth-scraper. (Antedated Jan. 14, 1871).....	Jan. 24, 1871
115,011	Babbitt, Alfred B., Taunton, Mass. Anchor.	May 23, 1871
120,479	Babbitt, Benjamin T., New York, N. Y. Steam-heater.	Oct. 31, 1871
120,480	Same..... Sad-iron heater. (Antedated Oct. 18, 1871).....	Oct. 31, 1871
117,501	Babbitt, Samuel, Brazil, Ind. Awl.	Aug. 1, 1871
121,312	Same..... Shoe-quarter, &c.	Nov. 28, 1871
113,242	Babbitt, S. William, West Meriden, Conn. Fluting-machine.	April 4, 1871
	Babcock, Alpheus and Norman, <i>et al.</i> (<i>See</i> Montgomery & Howes, assignors.) (Reissue.)	
119,297	Babcock, Charles J., Rives Junction, Mich. Wagon-tongue supporter.	Sept. 26, 1871
4,512	Babcock, George H., and Stephen Wilcox, assignors to George H. Babcock and Joseph P. Manton, New York, N. Y. Steam-generator. (Reissue.)	Aug. 15, 1871
111,029	Babcock, Holliday C., Eureka, Cal. Shingle-machine.	Jan. 17, 1871
114,252	Babcock, Josiah, John F. Stillson, and James C. Leidy, Galesburgh, Ill. Stalk-cutter.	May 2, 1871
	Babcock, Sylvester P., and George A. Colton. (<i>See</i> Colton & Babcock.) (Three cases.)	
116,256	Babcock, William E., East Pembroke, N. Y. Clapboard-gauge.	June 27, 1871
117,592	Bachelder, Amos, Pelham, N. H. Flat iron.	Aug. 1, 1871
	Bachelder, John. (<i>See</i> Gibbud, Eli B., assignor.)	
114,253	Bacheller, William, assignor to self and George P. Kimball, West Newbury, Mass. Sash-holder.	May 2, 1871
120,229	Backus, Rodman, Albany, N. Y. Base-burning stove.	Oct. 24, 1871
110,819	Bacon, Charles Edwin, Buffalo, N. Y. Case for reed-organs.	Jan. 10, 1871
4,700	Bacon, Charles E., assignor to self and George A. Prince, Buffalo, N. Y. Organ-case. (Design)	Mar. 14, 1871
115,146	Bacon, Charles E., and William J. Kent, said Kent assignor to said Bacon, Buffalo, N. Y. Name-plate for organ-stops.	May 23, 1871
112,528	Bacon, Isaac Preston, Bedford, Mass. Carriage-perch.	Mar. 14, 1871
	Bacon, Steuben T., and Henry W. Adams. (<i>See</i> Adams & Bacon.)	
115,012	Baer, Benjamin F., assignor to Samuel S. Weist, Lancaster, Pa. Door-securer.	May 23, 1871
117,361	Baer, Michael, Logansport, Ind. Combined seeder and cultivator.	July 25, 1871
	Bagaley, Young & Co., (<i>See</i> Sleeth, Robert, assignor.)	
115,413	Baggott, Thomas, assignor to self and George J. Dufur, Baltimore, Md. Machine for making spiral wire-springs.	May 30, 1871
	Bagnall, Isaac, and William Onions. (<i>See</i> Onions & Bagnall.)	
112,884	Bailey, Alfred M., assignor to the Metropolitan Washing-Machine Company, Middlefield, Conn. Clothes-wringer.	Mar. 21, 1871
113,130	Same..... Washing-machine.	Mar. 28, 1871
119,105	Bailey, Edward H., Brooklyn, N. Y. Stair-pad.	Sept. 19, 1871
112,405	Bailey, Fortune L., Freeport, Ind. Clod-fender.	Mar. 7, 1871
118,835	Bailey, Franklin L., Boston, Mass. Printing-press.	Sept. 12, 1871
	Bailey, Frederick W., and James Noyes. (<i>See</i> Coffin, John E., assignor.)	
115,806	Bailey, George, Putnam, Conn. Let-off mechanism.	June 13, 1871
121,313	Bailey, George C., Pittsburgh, Pa. Street-washer.	Nov. 28, 1871
121,573	Bailey, George E., Mansfield, Mass. Bakers' oven.	Dec. 5, 1871
117,362	Bailey, George H., and Harvey H. Burritt, Newark, N. J. Steam-engine.	July 25, 1871
115,147	Bailey, Gilbert L., Portland, Me. Sash-fastener.	May 23, 1871
117,363	Bailey, John W., San Francisco, Cal. Desulphurizing and treating ores.	July 25, 1871
120,695	Same..... Roasting and treating ores.	Nov. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,696	Bailey, John W., San Francisco, Cal. Furnace for roasting ores.....	Nov. 7, 1871
112,675	Bailey, Joseph R., assignor to self and Selden A. Bailey, Woonsocket, R. I. Bench-plane.....	Mar. 14, 1871
113,003	Bailey, Leonard, New Britain, Conn. Plane-stock.....	Mar. 28, 1871
114,634	Same..... Adjustable try-square.....	May 9, 1871
113,243	Bailey, Peter, Smyrna, Iowa. Wind-mill.....	April 4, 1871
116,533	Bailey, Richard W., New York, N. Y. Composition for blacking stoves.....	July 4, 1871
112,529	Bailey, Thomas D., Lowell, Mass. Chimney-cap.....	Mar. 14, 1871
111,604	Bailey, William, Friendship, N. Y. Sand-sifter.....	Feb. 7, 1871
	Bailey, William, and Henry Medlock. (<i>See</i> Medlock & Bailey.)	
112,106	Bailey, William Henry, England. Pyrometer.....	Feb. 28, 1871
120,929	Bailey, William H., Mahanoy City, Pa. Blower.....	Nov. 14, 1871
5,408	Baillairge, Charles, Quebec, Canada. Arrangement of geometrical forms. (De- sign).....	Dec. 12, 1871
117,721	Bain, Francis M., Delaware, Ohio. Portable building.....	Aug. 8, 1871
112,107	Bain, William C., and John J. Kendall, Troy's Store, N. C. Washing-machine.	Feb. 28, 1871
115,148	Baines, Hugh, Canada. Plant for repairing railway-rails.....	May 23, 1871
115,149	Same..... Roll for patching railway rails.....	May 23, 1871
118,181	Same..... Tilt-hammer.....	Aug. 22, 1871
118,667	Same..... Construction-train for railways.....	Aug. 29, 1871
117,142	Baird, James R., Vincennes, Ind. Wheel for vehicles.....	July 18, 1871
4,567	Same..... same..... (Reissue).....	Sept. 26, 1871
117,364	Baird, Samuel J., Waynesborough, Va. Button-hole attachment for sewing- machines.....	July 25, 1871
113,721	Baker, Albert, Appleton, Wis. Paper-file, &c.....	April 18, 1871
113,131	Baker, Andrew A., Camden, N. J. Check-holder.....	Mar. 28, 1871
117,502	Baker, Barney, Hopkinton, Iowa. Seed-planter.....	Aug. 1, 1871
116,795	Baker, Burr C., Toledo, Ohio. Anti-friction journal-box.....	July 11, 1871
113,244	Baker, Charles L. W., assignor to C. L. W. Baker & Co., Hartford, Conn. Broom and mop handle brush.....	April 4, 1871
	Baker, Edward L., et al. (<i>See</i> Goodwin, William, assignor)..... (Re-issue.)	
122,210	Baker, Elias, assignor to George A. Colby, Meriden, N. H. Threshold.....	Dec. 26, 1871
116,350	Baker, Francis, New York, N. Y. Medical compound for cure of cancer and other diseases.....	June 27, 1871
122,100	Baker, Francis, Boston, Mass. Preparing salt.....	Dec. 26, 1871
122,101	Same..... Apparatus for preparing salt for culinary use.....	Dec. 26, 1871
117,722	Baker, George, and Isaac Bullock, Lima, Pa. Soap.....	Aug. 8, 1871
	Baker, George M., and Erastus H. Carver. (<i>See</i> Carver & Baker.)	
115,925	Baker, George W., Wilmington, Del. Sewing-machine.....	June 13, 1871
120,564	Baker, Haydu M., assignor to John Adams, Brooklyn, N. Y. Cleaning cotton- waste and other fibrous material.....	Nov. 7, 1871
117,033	Baker, Horace, Cortland, N. Y. Hay-loader.....	July 18, 1871
111,900	Baker, Horace Z., Pawtucket, R. I. Machine for cutting leather.....	Feb. 21, 1871
119,734	Baker, Isaac, Long Branch, Mo. Hoof-parer.....	Oct. 10, 1871
113,722	Baker, Isaac T., Gratiot, Ohio. Tile-ditcher.....	April 18, 1871
	Baker, Jacob, and Eide H. Schmults. (<i>See</i> Schmults & Baker.)	
118,895	Baker, John B., Syracuse, N. Y. Potato-digger.....	Sept. 12, 1871
	Baker, John B., and Richard W. Jones. (<i>See</i> Jones & Baker.)	
118,673	Baker, John C., Mechanicsburgh, Ohio. Mowing-machine.....	Sept. 5, 1871
117,365	Baker, John G., Philadelphia, Pa. Machine for cutting tobacco.....	July 25, 1871
112,007	Baker, John G., assignor to Henry Disston & Son, Philadelphia, Pa. Buck- saw frame.....	Feb. 21, 1871
121,314	Baker, John G., assignor to Enterprise Manufacturing Company, Philadelphia, Pa. Cheese-cutting machine.....	Nov. 28, 1871
115,013	Baker, John W., Elkton, Ind. Root-cutter for plows.....	May 23, 1871
	Same..... (<i>See</i> Evans, Benjamin D., assignor.)	
111,605	Baker, Joseph, Canada. Scoop and sifter.....	Feb. 7, 1871
113,245	Baker, Peter, Oakland, Md. Damper for chimneys.....	April 4, 1871
	Baker, Rufus, et al. (<i>See</i> Johnson, Albert W., assignor.)	
117,723	Baker, Rush D., Syracuse, N. Y. Ladle for canning fruit.....	Aug. 8, 1871
	Baker, Samuel T. (<i>See</i> Ogborn, Harrison, assignor.)	
110,621	Baker, Sanford J., Madison Centre, Me. Felter or clog for fowls.....	Jan. 3, 1871
121,268	Baker, Seth W., Providence, R. I. Saddle-girth.....	Nov. 28, 1871
115,268	Baker, Sylvester C., Joseph Root, and Emerson J. Case, York, Pa. Platform weighing-scale.....	May 30, 1871
121,227	Baker, William C., assignor to self and Jacob F. Cook, Baltimore, Md. Oyster- dredge.....	Nov. 28, 1871
114,746	Baker, William Rondeau, Canada. Carriage hold-back.....	May 16, 1871
	Baker, William R., and Leander J. McCormick. (<i>See</i> McCormick & Baker.) (Two cases.)	
113,834	Balch, Alfred H., and Wolfred D. E. Nelson, Canada. Clasp-fastener for bags, &c	April 18, 1871
115,561	Same..... Electro-magnetic separator.....	June 6, 1871
118,094	Balch, Frederick A., Hingham, Wis. Grain-separator.....	Aug. 15, 1871
118,576	Balch, Frederick A., assignor to self and E. T. Bond, Hingham, Wis. Lantern.	Aug. 29, 1871
116,008	Balch, Israel D., Cambridge, Mass. Soap.....	June 20, 1871
118,182	Balch, William L., assignor to William H. Golding and Edward H. Dennison, Boston, Mass. Printing-press.....	Aug. 22, 1871
4,573	Baldwin, Anna E., Newark, N. J. Milk-cooler..... (Reissue).....	Oct. 3, 1871
111,030	Baldwin, Cyrus W., Boston, Mass. Hydro-atmospheric elevator.....	Jan. 17, 1871
119,688	Baldwin, Frederick P., and Charles T. Segar, Utica, N. Y. Spring bed-bottom.	Oct. 10, 1871
119,553	Baldwin, Hiram, Nashua, N. H. Vegetable-cutter.....	Oct. 3, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,479	Baldwin, James S., Newark, N. J. Engine operated by heated liquids.....	Dec. 5, 1871
121,480	Same.....same.....	Dec. 5, 1871
121,481	Same.....same.....	Dec. 5, 1871
121,482	Same.....Apparatus for forcing liquids by the expansion and condensation of gases.....	Dec. 5, 1871
	Baldwin, N. A. (<i>See</i> Crosby, Chauncey O., assignor.).....(Reissue.)	
122,144	Baldwin, Nathan H., Laconia, N. H. Saw-filers' vise.....	Dec. 26, 1871
120,846	Baldwin, Nathaniel B., Chicago, Ill. Propelling-power.....	Nov. 14, 1871
117,034	Baldwin, Phineas Orlando, Spring Lake, Mich. Cultivator.....	July 18, 1871
120,613	Baldwin, Silas D., Chicago, Ill. Vapor-burner. (Antedated Oct. 28, 1871).....	Nov. 7, 1871
117,724	Baldwin, Thomas B., Marshall, Texas. Bedstead.....	Aug. 8, 1871
	Baldwin, William M., and Charles S. Lee. (<i>See</i> Lee & Baldwin.)	
110,722	Ball, Albert, Canton, Ohio. Iron plow-beam.....	Jan. 3, 1871
120,022	Same.....Wheel for vehicles. (Antedated Oct. 14, 1871).....	Oct. 17, 1871
112,885	Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Rock-drill.....	Mar. 21, 1871
	Ball, Augustus. (<i>See</i> Taft, George C., assignor.)	
111,419	Ball, David H., Sinnamahoning, Pa. Car-coupling.....	Jan. 31, 1871
116,663	Same.....same.....	July 4, 1871
110,723	Ball, David H., and John Brooks, Sinnamahoning, Pa. Car-replacer.....	Jan. 3, 1871
	Ball, Ephraim, Canton, Ohio. Mowing-machine.....(Extension of No. 1,007).....	Nov. 27, 1871
	Same.....(Extension of No. 1,008).....	Nov. 27, 1871
	Same.....(Extension of No. 1,009).....	Nov. 27, 1871
	Same.....(Extension of No. 1,010).....	Nov. 27, 1871
	Same.....(Extension of No. 1,011).....	Nov. 27, 1871
	Same.....(Extension of No. 1,012).....	Nov. 27, 1871
119,811	Ball, Ephraim, jr., Canton, Ohio. Wheel for vehicles. (Antedated Oct. 7, 1871).....	Oct. 10, 1871
121,574	Same.....Axle for vehicles. (Antedated Nov. 25, 1871).....	Dec. 5, 1871
	Ball, E., & Co. (<i>See</i> Rohrer & Roper, assignors.)	
112,406	Ball, Hugh S., Spartanburgh, S. C. Ruler.....	Mar. 7, 1871
111,420	Ball, James, New York, N. Y. Envelope-machine.....	Jan. 31, 1871
119,106	Ball, John, sr., Canton, Ohio. Iron running-gear for wagons.....	Sept. 19, 1871
121,315	Ball, Nathan, East Palestine, Ohio, and Joseph A. Stansbury, Salem, Ohio, said Stansbury assignor to said Ball. Rock-drilling machine.....	Nov. 28, 1871
	Ball, R., & Co. (<i>See</i> Halsted, Eminent P., assignor.)	
	Same.....(<i>See</i> Clark, Milton W., assignor.)	
	Same.....(<i>See</i> Halsted, Eminent P., assignor.)	
	Same.....(<i>See</i> Gibbs, Dalphon L., assignor.)	
116,009	Ball, Robert R., West Meriden, Conn. Sash-holder.....	June 20, 1871
117,366	Ball, William, New Vienna, Ohio. Meter.....	July 25, 1871
110,888	Ballard, Collesster M., and Myron Morehouse, Johnsonburgh, N. Y. Fence.....	Jan. 10, 1871
115,676	Ballard, Seth R. and George W., Coldwater, Mich. Spinning-machine.....	June 6, 1871
116,534	Ballentine, Hamilton, Philadelphia, Pa. Lifting-jack.....	July 4, 1871
	Ballinger, Charles, <i>et al.</i> (<i>See</i> Guttridge, David C., assignor.)	
113,966	Ballou, Ellis, Zanesville, Ohio. Dumb-bell.....	April 25, 1871
115,677	Ballou, John, Boston, Mass. Furnace-pot.....	June 6, 1871
116,137	Balmain, William Henry, England. Manufacture of glass.....	June 20, 1871
116,664	Same.....Manufacture of bicarbonate of soda.....	July 4, 1871
	Balsley, Christian. (<i>See</i> Schoeller, Earnest A., assignor.)	
114,093	Balsly, Junius S., North Bend, Ky. Washing-machine.....	April 25, 1871
	Baltimore Bridge Company. (<i>See</i> Smith, C. Shaler, assignor.)	
110,724	Bammerlin, Leonard, Canton, Ohio. Grain-dumping car.....	Jan. 3, 1871
117,503	Bancroft, Edward H., Syracuse, N. Y. Apparatus for transmitting motion.....	Aug. 1, 1871
	Bancroft, J. A. & Co. (<i>See</i> Old, Ausborn F., assignor).....(Design.)	
	Bancroft, William R. (<i>See</i> Todd, Joshua, assignor.)	
117,367	Bandle, Jacob Christ, and Engelbert P. Christner, Cincinnati, Ohio. Cap-gun... ..	July 25, 1871
111,805	Bangle, Amos H., Brooklyn, Cal. Printing-press.....	Feb. 14, 1871
115,807	Banker, George W., New York, N. Y. Barrel, keg, and pail.....	June 13, 1871
116,393	Same.....Vessel for oil and other liquids.....	June 27, 1871
116,394	Banks, James, Port Blanchard, Pa. Steam-engine.....	June 27, 1871
	Banks, Joseph, and James Hothersall. (<i>See</i> Hothersall & Banks.)	
	Bannehr, James, and Henry Moule. (<i>See</i> Moule & Bannehr.)	
117,242	Banta, William E., assignor to self and John P. Allen, Springfield, Ohio. Lever-staff for watches, &c.....	July 25, 1871
117,725	Banzett, William, Williamsburgh, N. Y. Sad-iron and ruffler.....	Aug. 8, 1871
	Barbarin, Arthur, and Antoine Ernest Dupas. (<i>See</i> Dupas & Barbarin.)	
117,504	Barbarin, Arthur, and Joseph Albrecht, New Orleans, La. Hydraulic motor ..	Aug. 1, 1871
117,505	Same.....same.....	Aug. 1, 1871
116,535	Barber, Charles E., and William Dean, assignors to selves and George Loring, Central Village, Conn. Feather-renovator.....	July 4, 1871
113,967	Barber, Franklin, Detroit, Mich. Revolving-chair.....	April 25, 1871
	Barber, George M. (<i>See</i> Lewis Lewis, assignor.)	
111,508	Barber, Hugh M., Franklin Station, Ohio. Fence.....	Feb. 7, 1871
121,575	Barber, Joseph, assignor to self and Richard B. Duncan, Bridesburgh, Pa. Lubricator for car-axles.....	Dec. 5, 1871
118,577	Barber, Samuel W., Heath, Mass. Hinge.....	Aug. 29, 1871
	Barber, Theodore M., and Llewellyn E. Jones. (<i>See</i> Jones & Barber.)	
115,014	Barclay, Frank, Aurora, Ill. Heating-stove.....	May 23, 1871
5,326	Barclay, Thomas, assignor to Hartford Carpet Company, Scotland. Carpet-pattern.....(Design).....	Oct. 31, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Barcus, George W., and John W. Gentry. (<i>See Gentry & Barcus.</i>)	
	Bard, Samuel. (<i>See Bowles, John, assignor.</i>)	
	Bard, William H. (<i>See Mason, Arnold P., assignor.</i>) (Two cases.)	
117,035	Barden, John S., Providence, R. I. Water-meter	July 18, 1871
115,808	Bardin, Emerson R., Newburgh, N. Y. Boot and shoe stretcher	June 13, 1871
	Bare, A. S. (<i>See Kraatz, David K., assignor.</i>)	
119,002	Baringer, John J., Germantown, N. Y. Glue-pot	Sept. 19, 1871
116,917	Barjon, Victor, New York, N. Y. Liquid for galvanic batteries	July 11, 1871
116,010	Barker, Benjamin F., Belfast, Me. Door	June 20, 1871
119,107	Same.....Curtisville, Mass. Machine for pulping wood for paper-stock, &c.	Sept. 19, 1871
111,718	Barker, George R., Philadelphia, Pa. Ventilator	Feb. 14, 1871
	Barker, James S., and Trumble Kent. (<i>See Kent & Barker</i>)	
115,562	Barker, John F., assignor to the Gilbert & Barker Manufacturing Company, Springfield, Mass. Apparatus for carbureting air	June 6, 1871
121,269	Barker, John F., Springfield, Mass. Blowing-apparatus for organs	Nov. 28, 1871
115,414	Barker, Joseph, Chicago, Ill. Sand-paperying machine	May 30, 1871
119,108	Barker, Joseph P., Vienna, Ohio. Harvester-cutter grinder	Sept. 19, 1871
	Barker, Samuel M., et al. (<i>See Cauldwell, James A., assignor.</i>)	
116,138	Barker, William C., Ypsilanti, Mich. Bucket for chain-pump	June 20, 1871
113,615	Barker, William Henry, Canada. Skate	April 11, 1871
118,896	Same.....Pot-cover	Sept. 12, 1871
115,415	Barling, Albert, West Chester, Pa. Pruning-shears	May 30, 1871
118,424	Barlow, Elisha T., San Francisco, Cal. Bedstead-fastening	Aug. 29, 1871
120,230	Barlow, Joseph C., assignor to Vandiver Corn-Planter Company, Quincy, Ill. Seed-dropper	Oct. 24, 1871
	Barlow, Moses, and James M. Van Demark. (<i>See Van Demark & Barlow.</i>)	
117,368	Barlow, Peleg C., Beverly, W. Va. Car-coupling	July 25, 1871
116,796	Barnard, George A., New York, N. Y. Steam-generator	July 11, 1871
118,836	Barnard, John D., assignor to self, D. C. Paul, and John N. Standish, Frostburgh, Md. Car-coupling	Sept. 12, 1871
4,308	Barnekor, Kiel V., assignor to self and George W. Greene, New York, N. Y. Breech-loading fire-arm	Mar. 28, 1871
	Barnes, Albert H., et al. (<i>See Garity, James, assignor.</i>)	
	Barnes, Augustus, and Orson W. Stow. (<i>See Stow & Barnes</i>) (Extension.)	
110,820	Barnes, Harris H., Hoosick Falls, N. Y. Beds, cushions, and other upholstery	Jan. 10, 1871
121,745	Barnes, Harvey S., Augusta, Wis. Motive-power for sewing-machines	Dec. 12, 1871
4,665	Barnes, Jermain P., Rochester, N. Y. Hand-stamp frame (Design)	Feb. 21, 1871
114,094	Barnes, John, Rockford, Ill. Harvester-rake	April 25, 1871
114,747	Same.....Harvester	May 16, 1871
114,514	Barnes, John and William F., Rockford, Ill. Mechanical movement	May 9, 1871
119,554	Barnes, Joseph C., Albany, N. Y. Hot-air furnace	Oct. 3, 1871
116,821	Barnes, Lucius P., Fitchburgh, Mass. Adjustable door-fastener	Jan. 10, 1871
4,232	Barnes, Newcomb M., Tiffin, Ohio. Horse hay-rake (Reissue)	Jan. 17, 1871
110,949	Barnes, Thomas J., Corry, Pa. Harvester	Jan. 17, 1871
	Barnett, Herrman & Co. (<i>See Lefell, Thomas, assignor.</i>)	
116,395	Barnett, John, Frederickstown, Ohio. Rotary steam-engine	June 27, 1871
113,004	Barnett, John T., Decatur, Ill. Patch for railroad rails	Mar. 28, 1871
113,334	Barnett, Samuel L., New York, N. Y. Chest expander	April 4, 1871
4,621	Barnett, William N., assignor through mesne assignments to Saral L. Barnett and Simon Beery, Urbana, Ohio. Carriage-top prop-block (Reissue)	Nov. 7, 1871
112,407	Barney, Benjamin, Time, Ill. Fanning-mill	Mar. 7, 1871
119,960	Barney, C. Henry, Providence, R. I. Hair-curler	Oct. 17, 1871
117,593	Barney, Everett H., Springfield, Mass. Hand-stamp	Aug. 1, 1871
113,132	Barney, Jeremiah, Perry's Mills, N. Y. Double-acting force-pump	Mar. 28, 1871
116,797	Barnhart, Daniel K., Gaines, Pa. Table-stand, &c.	July 11, 1871
117,726	Barnhill, J. J. and D. N., Vincennes, Ind. Harvester-dropper	Aug. 8, 1871
111,421	Barns, Turner, and Hugh S. Jamison, Greensburgh, Ind. Grain-drill	Jan. 31, 1871
111,901	Barnstead, James T., Peabody, Mass. Curriers' tool	Feb. 21, 1871
4,258	Barnstead, James T., assignor through mesne assignments to George L. Newcomb and James Perkins, Peabody, Mass. Machine for scraping leather (Reissue)	Feb. 14, 1871
	Barnum, Daniel, New York, N. Y. Sewing-machine gauge (Disclaimer)	July 26, 1871
112,408	Barnum, Lafayette, assignor to self and A. R. Hale, Bridgeport, Conn. Ice-cutting machine	Mar. 7, 1871
	Barnum, Nelson. (<i>See Goodrich, Harry C., assignor.</i>)	
114,254	Barnum, Nelson, Laporte, Ind., and Russell S. Barnum, Chicago, Ill. Cording-attachment for sewing-machines	May 2, 1871
121,146	Barnum, Noble S., Ridgefield, Conn. Fork-tine scoop for gathering stone	Oct. 24, 1871
119,494	Barnum, Seth, Whitestown, N. Y. Wagon-shaft coupling	Oct. 3, 1871
114,748	Barr, Henry H., assignor of half interest to John Kerper, Harrisburgh, Pa. Shutter-worker	May 16, 1871
116,396	Barr, Matthew R., Erie, Pa. Stove-grate	June 27, 1871
116,798	Barr, Watson, Ypsilanti, Mich. Cider-mill	July 11, 1871
113,616	Barrett, Albert G., Barrett, Kans. Balance-slide valve	April 11, 1871
121,075	Same.....Railway-car wheel	Nov. 21, 1871
122,145	Same.....Apparatus for producing plane or parallel movements	Dec. 26, 1871
121,981	Barrett, Charles, Boston, Mass. Dumping-car	Dec. 19, 1871
	Barrett, John R. (<i>See Emerson, George W., assignor.</i>)	
4,867	Barrett, Joseph, assignor to Hartford Carpet Company, New York, N. Y. Carpet-pattern (Design)	May 9, 1871
5,379	Same.....same (Design)	Nov. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,397	Barrett, Joseph W., Calhoun, Ga. Car-coupling.....	June 27, 1871
111,422	Barrett, Oramel Graves, Boston Highlands, Mass. Pipe-wrench.....	Jan. 31, 1871
118,897	Barrett, Oscar, and Azzel D. Brooks, Dartford, Wis. Bag-holder.....	Sept. 12, 1871
	Barrett, Rockwood, and Thomas Ross. (See Merriman & Ross, assignors.) (Reissue.)	
117,369	Barrick, Charles W., Walkersville, Md. Combined corn-planter and fertilizer-distributor.....	July 25, 1871
117,965	Barrie, Samuel S., Greenpoint, N. Y. Epergne for fruits and flowers.....	Aug. 15, 1871
120,231	Barriker, John W., Omaha, Nebr. Rotary-engine.....	Oct. 24, 1871
	Barritt, John R. (See Emerson, George W., assignor.) (Reissue.)	
111,166	Barrow, Thomas J., Brooklyn, E. D., N. Y. Concrete for pipes, tubes, buildings, &c.	Jan. 24, 1871
111,806	Same.....Concrete for pipes, bricks, &c.....	Feb. 14, 1871
112,206	Same.....Burning hydrocarbon liquids for light.....	Feb. 28, 1871
114,904	Same.....Water and drain pipe.....	May 16, 1871
114,905	Same.....Mold.....	May 16, 1871
114,635	Barrows, Arad, Philadelphia, Pa. Pipe-attachment for plumbing.....	May 9, 1871
	Barrows, Edward, <i>et al.</i> (See Graichen, Frederick William, assignor.) (Two cases.)	
	Barrows, Henry F. (See Clappitt, George W., assignor.)	
117,727	Barry, Andrew F., New York, N. Y. Range-setting.....	Aug. 8, 1871
119,495	Barry, Andrew P., Martinsville, Miss. Grain-drill.....	Oct. 3, 1871
122,211	Barry, George, Chicago, Ill. Filler-box for cigar-makers.....	Dec. 26, 1871
117,966	Barry, James S., and Alfred M., Sheridan Township, Mich. Fruit-gatherer.....	Aug. 15, 1871
111,719	Barry, William, Carthage, N. Y. Leather-punching and feeding machine.....	Feb. 14, 1871
113,005	Same.....Rotary steam-engine.....	Mar. 23, 1871
116,398	Barsaloux, John B., Saint Louis, Mo. Barrel-head.....	June 27, 1871
	Barsch, Franz, and Bernhard Berndt. (See Berndt & Barsch.)	
120,362	Barse, Mills W., Olean, N. Y. Attaching knobs to spindles.....	Oct. 31, 1871
117,036	Barstow, Benjamin, Westfield, Mass. Spring-bed.....	July 18, 1871
110,725	Barstow, William, San Francisco, Cal. Rein-holder. (Antedated Dec. 3, 1870.)	Jan. 3, 1871
114,749	Barta, Joseph, La Crosse, Wis. Harvester-binder.....	May 16, 1871
118,578	Barthel, Gustav, New York, N. Y. Hat-press.....	Aug. 29, 1871
120,614	Barth, Adam and Nicholas, Saint Louis, Mo. Sewing-machine.....	Nov. 7, 1871
	Barth, John, and Herrmann Erbs. (See Erbs & Barth.) (Design.)	
117,143	Barthel, Michael, San Francisco, Cal. Farm-gate.....	July 13, 1871
	Bartholomew, G. W. and H. S. (See Porter, Rufus, assignor.)	
116,011	Bartholomew, Enos, Mill Hall, Pa. Ax-bit blank-machine.....	June 20, 1871
4,518	Bartholomew, Harry S., Bristol, Conn. Bit-brace..... (Division A, reissue.)	Aug. 22, 1871
4,519	Same.....same..... (Division B, reissue.)	Aug. 22, 1871
111,509	Bartholomew, Thomas W., New York, N. Y. Faucet.....	Feb. 7, 1871
	Same.....(See Eley, Philip, assignor.)	
4,676	Bartholomew, William N., Newton Centre, Mass. Drawing-chart.... (Design.)	Feb. 23, 1871
116,139	Same.....Slate-frame.....	June 20, 1871
121,982	Bartholomew, William N., assignor to Joseph Reckendorfer, Newton Centre, Mass. Rubber eraser.....	Dec. 19, 1871
119,496	Bartlett, Abel H., Spuyten Duyvel, N. Y. Attachment for sewing-machines.....	Oct. 3, 1871
119,555	Same.....Attachment for sewing-machines. (Antedated Sept. 16, 1871.)	Oct. 3, 1871
	Bartlett, D. L., <i>et al.</i> (See Hawkes, Albert G., assignor.)	
115,150	Bartlett, Elbridge G. W., Providence, R. I. Clothes-wringer.....	May 23, 1871
116,665	Bartlett, Elbridge G. W., assignor to Providence Tool Company, Providence, R. I. Clothes-wringer.....	July 4, 1871
119,003	Bartlett, Henry M., South Dedham, Mass. Water-meter.....	Sept. 19, 1871
119,004	Same.....same.....	Sept. 19, 1871
117,243	Bartlett, Jonathan B. L., North Jay, Me. Horse-rake teeth.....	July 25, 1871
116,399	Bartlett, Joseph W., New York, N. Y. Street-lantern.....	June 27, 1871
110,889	Bartlett, William D., Amesbury, Mass. Hot-air furnace.....	Jan. 10, 1871
115,015	Bartlett, William E., Newburgh, N. Y. Vapor-burner.....	May 23, 1871
113,723	Barton, George S., assignor to Rice, Barton & Pales Machine and Iron Company, Worcester, Mass. Expanding pulley.....	April 18, 1871
112,676	Barton, John W., and Thomas Holmes, Emporia, Kans. Rotary harrow.....	Mar. 14, 1871
113,835	Barton, Richard, New York, N. Y. Tongue and groove joint.....	April 18, 1871
120,481	Barton, William Oscar, Elizabeth, N. J. Wood-pavement.....	Oct. 31, 1871
115,678	Barwick, William H., Canada. Pipe-wrench.....	June 6, 1871
118,508	Bashor, William, Johnson City, Tenn. Flour-bolt.....	Aug. 29, 1871
120,232	Basket, Sanford, Crittenden County, Ark. Horse-power.....	Oct. 24, 1871
110,622	Bassett, Joel R., Cincinnati, Ohio. Pump.....	Jan. 3, 1871
118,579	Bassett, John A., assignor of half interest to Henri L. Stuart, Salem, Mass. Manufacture of coal-gas.....	Aug. 29, 1871
119,913	Bassett, John T., assignor to self, John Bassler, and Marcellus S. Matthews, Galesburgh, Ill. Steam-actuated car-brake.....	Oct. 17, 1871
	Bassler, John, <i>et al.</i> (See Bassett, John T., assignor.)	
119,298	Bastet, Louis, Tarrytown, N. Y. Electric battery.....	Sept. 26, 1871
114,095	Batchelar, Arthur, England. Kiln.....	April 25, 1871
116,257	Batchelder, Asahel G., Lowell, Mass. Blind-fastener.....	June 27, 1871
118,898	Batchelder, Jesse S., Fort Wayne, Ind. Confectioners and grocers' can.....	Sept. 12, 1871
118,899	Same.....Confectionery jar.....	Sept. 12, 1871
114,389	Batchelder, William W., Boston, Mass. Self-lighting lamp.....	May 2, 1871
119,497	Batchelder, William W., assignor to self and Matthew Riley, Boston, Mass. Self-lighting lamp.....	Oct. 3, 1871
4,942	Batchelor, John A., New York, N. Y. Clock-front..... (Design.)	May 30, 1871
111,031	Batchelor, William, assignor to Edwin Russ and Thomas Shewell Morris, England. Fire-bar.....	Jan. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,151	Bates, Alexander B., Baltimore, Md. Sewing-machine.....	May 23, 1871
113,617	Bates, Benjamin, Baltimore, Md. Root or tonic beer.....	April 11, 1871
	Bates, Francis G., and Peter Ferguson. (<i>See</i> Ferguson & Bates.)	
111,423	Bates, George, Philadelphia, Pa. Paper-cutting machine.....	Jan. 31, 1871
120,697	Same..... Paper-cutting and scoring machine.....	Nov. 7, 1871
	Bates, Hamilton and Daniel L. (<i>See</i> Lemman, John, assignor.)	
113,836	Bates, James, Baltimore, Md. Hoisting-machine.....	April 18, 1871
119,109	Bates, Joseph W. and Mary A., Saint Paul, Minn. Wash-boiler.....	Sept. 26, 1871
113,385	Bates, Lyman M., Cleveland, Ohio. Spring bed-bottom. (Antedated March 27, 1871).....	April 4, 1871
117,370	Bates, Lyman M., assignor to self, Edward P., and Ira H. Bates, Wooster, Ohio. Mosquito-canopy holder.....	July 25, 1871
122,212	Bates, Samuel D., Boston, Mass. Envelope.....	Dec. 26, 1871
4,380	Bates, Thomas, Central City, Colo. Grinding and amalgamating ores. (Reissue).....	May 16, 1871
	Bates, Thomas L. (<i>See</i> Witsil, George L., assignor).....	
121,840	Bathurst, Henry A., Clearfield, Pa. Bee-hive.....	Dec. 12, 1871
121,038	Bathy, Theodore, Smith's Creek, Mich. Preventing mildew in canvas.....	Nov. 21, 1871
114,750	Battersly, Jenyns C., New York, N. Y. Sticking or adhesive plaster.....	May 16, 1871
117,144	Batthey, Orrin F., Worcester, Mass. Composition for preserving and coloring leather.....	July 18, 1871
111,424	Batty, Lindley M., Canton, Ohio. Harvester.....	Jan. 31, 1871
112,530	Same..... same.....	Mar. 14, 1871
122,213	Batwell, Edward, Ypsilanti, Mich. Thill-coupling.....	Dec. 26, 1871
114,751	Bauder, William, Circleville, Ohio. Carriage-top.....	May 16, 1871
	Bauer, Charles, and Henry Sommer. (<i>See</i> Sommer & Bauer.)	
	Bauer, George W., and George Otto. (<i>See</i> Otto & Bauer.)	
116,536	Bauer, John, Newark, N. J. Harness-trimming.....	July 4, 1871
117,145	Same..... Brooklyn, E. D., N. Y. Blacksmith's tuyere.....	July 18, 1871
4,580	Same..... Newark, N. J. Harness-trimming..... (Reissue).....	Oct. 10, 1871
119,914	Same..... same.....	Oct. 17, 1871
115,679	Baughman, David C., Tiffin, Ohio. Thrashing-machine.....	June 6, 1871
115,680	Same..... same.....	June 6, 1871
114,390	Baughman, Henry, Sandusky, Ohio. Corn-planter.....	May 2, 1871
117,037	Baum, John E., Philadelphia, Pa. Curtain-fixture.....	July 18, 1871
117,038	Same..... same.....	July 18, 1871
119,299	Same..... same.....	Sept. 26, 1871
111,167	Bauman, Aaron, and Orin O. Witherell, Toledo, Ohio. Hollow auger.....	Jan. 24, 1871
121,148	Bauman, Aaron, Toledo, Ohio. Bucket for chain-pumps.....	Nov. 21, 1871
121,746	Bauman, Allen H., Mapleton, Pa. Apparatus for drying sand and gravel.....	Dec. 12, 1871
	Bauman, William, and Joseph Allonas. (<i>See</i> Allonas & Bauman.)	
112,886	Baumgartner, Frederick. (<i>See</i> Douglass, William B., assignor.)	
	Bausmith, William T., Aberdeen, Md. Sash-holder.....	Mar. 21, 1871
	Baxter, George W., et al. (<i>See</i> Morrell, James A., assignor.)	
	Baxter, Thomas. (<i>See</i> Jordan, James C., assignor.)	
120,482	Baxter, Thomas W., Chicago, Ill. Stone-dressing machine.....	Oct. 31, 1871
120,930	Baxter, William, assignor to self, A. J. Halsey, and William Baxter, jr., Newark, N. J. Boiler and engine for street-cars.....	Nov. 14, 1871
113,725	Baxter, William, jr., Newark, N. J. Steam-pump.....	April 18, 1871
113,133	Baxter, William H., England. Grain-weighing register.....	Mar. 23, 1871
	Same..... (<i>See</i> Burch, Benjamin S., assignor.)	
116,537	Baxter, William Q., Maple Township, Pa. Combined stump-extractor and derrick.....	July 4, 1871
	Bayer, John. (<i>See</i> Anderhub, Andreas, assignor.)	
	Bayhan, William A., and Isaac P. Osborn. (<i>See</i> Osborn & Bayhan.)	
115,681	Bayley, William, and Abner B. Crowell, Wilmington, Del. Water-wheel.....	Jan. 6, 1871
118,778	Same..... Water-wheel case.....	Sept. 12, 1871
110,726	Baylie, Thomas S., and George H. Maurer, Washington, D. C. Curtain-brake.....	Jan. 3, 1871
117,967	Baylis, Mary Emma, assignor to Henry Baylis, England. Paper wrapper for needles.....	Aug. 15, 1871
121,576	Bayly, George W., Stuyvesant, N. Y. Scraper.....	Dec. 5, 1871
113,837	Bayly, Thomas V., Jones Station, Ind. Hay-elevator.....	April 18, 1871
121,316	Bayma, Joseph, San Francisco, Cal. Motive power and balance-car.....	Nov. 23, 1871
113,386	Baymore, Joseph, Philadelphia, Pa. Cheek-piece for ships' masts.....	April 4, 1871
	Baynes, Joseph T., et al. (<i>See</i> Beebe, Baynes & King.)	
118,674	Baynton, William, Pottsville, Pa. Rotary puddling-furnace.....	Sept. 5, 1871
	Beach, A. E. (<i>See</i> Holske, William F., assignor.)	
119,005	Beach, Charles Y., Brooklyn, N. Y. Manufacture of bone-black.....	Sept. 19, 1871
110,890	Beach, Darwin, Oshkosh, Wis. Spark-arrester.....	Jan. 10, 1871
112,108	Beach, Elias, Titusville, Pa. Wrench.....	Feb. 28, 1871
112,109	Same..... same.....	Feb. 28, 1871
114,636	Beach, Henry B., West Meriden, Conn. Tea-tray.....	May 9, 1871
4,384	Beach, Henry H., Rome, N. Y. Process of seasoning lumber..... (Reissue).....	May 16, 1871
	Beach, James C. (<i>See</i> Levis, Samuel G., assignor)..... (Reissue.)	
	Beach, Robert C., and Frederic L. Churchill. (<i>See</i> Churchill & Beach.)	
113,387	Beach, Sylvester W., Ypsilanti, Mich. Adjustable carriage-seat.....	April 4, 1871
115,152	Same..... same.....	May 23, 1871
	Same..... (<i>See</i> Nellis, John, assignor.)	
116,538	Beach, Thomas, Freeport, Pa. Gauge for mortising-machine.....	July 4, 1871
121,931	Beach, William G., assignor to the New Haven Wheel Company, New Haven, Conn. Machine for turning hubs.....	Nov. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,556	Beagle, Henry, jr., Philadelphia, Pa. Back-band hook. (Antedated Sept. 30, 1871)	Oct. 3, 1871
112,312	Beal, John A., Waterford, N. Y. Potato-probe.	Mar. 7, 1871
121,270	Beal, John Williams, South Scituate, Mass. Attaching wheels to axles	Nov. 23, 1871
120,363	Beal, William S. M., Baltimore, Md. Bottle-fastening.	Oct. 31, 1871
117,594	Beals, Charles W., Greig, N. Y. Device for resetting old auger-bits.	Aug. 1, 1871
113,134	Beam, Jacob H., Springfield, Ill. Harvester	Mar. 28, 1871
117,728	Beaman, Aurelia W., Boston, Mass. Shoulder-brace.	Aug. 8, 1871
114,391	Bean, Charles, Pawtucket, R. I. Horse hay-fork.	May 2, 1871
116,539	Bean, Homer, assignor to Henry M. Wyeth, Fredonia, Ohio. Sawing-machine.	July 4, 1871
116,258	Bean, John, jr., assignor to self, William H. Williams, and Bennett Goodsell, Pentwater, Mich. Machine for cutting segment-patterns	June 27, 1871
4,481	Bean, John, jr., <i>et al.</i> (See Goodsell, Goodsell & Bean.)	
	Beane, Eben J., Providence, R. I. Boot and shoe heel-trimming machine. (Re-issue)	July 25, 1871
113,960	Beard, Charles A., and Ezra E. Evans, Zanesville, Ohio. Plow	April 18, 1871
116,140	Beardsley, Charles T., Hamden, Conn. Broom-holder	June 20, 1871
120,233	Beardsley, Emilie A., Binghamton, N. Y. Combined heater and stand for table purposes. (Antedated Oct. 17, 1871)	Oct. 24, 1871
121,271	Beardsley, George F., Binghamton, N. Y. Button for doors. (Antedated Nov. 13, 1871)	Nov. 23, 1871
115,809	Bearup, Albert G., assignor to self and Patrick Carraher, New York, N. Y. Steam-trap	June 13, 1871
118,779	Same.....Steam-heater	Sept. 12, 1871
	Bearup, Albert G., <i>et al.</i> (See Hopkins, Joseph W., assignor.)	
113,246	Beasley, Charles J., assignor to Tappey, Lumsden & Co., Petersburg, Va. Power-press	April 4, 1871
121,317	Beasley, Charles J., Petersburg, Va. Cotton-press	Nov. 23, 1871
	Beattie, Robert, & Sons. (See Nye, Elemir J., assignor.)	
	Beatty, Claudius F. (See Shedlock, Alfred, assignor.)	
118,095	Beatty, Henry, Massillon, Ohio. Portable-furnace	Aug. 15, 1871
	Beatty, James. (See Skillman, George R., assignor.)	
117,371	Beatty, James H., assignor to Sarah J. Beatty, Josiah B. Poor, and William McKee, Franklin, Pa. Sucker-rod joint or coupling.	July 25, 1871
4,277	Beatty, John P., Norwalk, Conn. Hat. (Reissue)	Feb. 23, 1871
112,677	Beatty, Samuel, Norwalk, Conn. Hat-press	Mar. 14, 1871
117,506	Same.....Hat-ventilator	Aug. 1, 1871
119,557	Beauchamp, William, Grayville, Ill. Hub and spoke	Oct. 3, 1871
122,214	Beaujeu, François, Parish of Orleans, La. Brick-machine	Dec. 26, 1871
118,580	Beaupré, Peter R., Metropolis City, Ill. Life-boat.	Aug. 29, 1871
117,729	Bebout, John Newton, Oberlin, Ohio. Rafter-hook.	Aug. 8, 1871
112,207	Bebro, Marcus, England. Electrical ticket-checking apparatus.	Feb. 28, 1871
118,509	Same.....Printing-machine	Aug. 29, 1871
5,360	Beck, Alexander, Philadelphia, Pa. Carpet-pattern. (Design)	Nov. 28, 1871
110,727	Beck, Frederick, New York, N. Y. Coating and decorating paper, cloth, and other materials	Jan. 3, 1871
121,149	Beck, Jonas D., Liberty, Pa. Machinists' vise	Nov. 21, 1871
	Beck, Washington. (See Miller, John Ernest, assignor.)	
118,133	Becker, John, Chickies, Pa. Arranging steam and water pipes in an exhaust chamber	Aug. 22, 1871
111,510	Becker, Leander, Jackson Township, Pa. Corn-planter	Feb. 7, 1871
115,269	Beckers, Alexander, New York, N. Y. Hand-stereoscope	May 30, 1871
118,675	Beckham, Cicero, Alexandria, Va. Handle of pocket-knives	Sept. 5, 1871
5,041	Beckley, Philip G., Newark, N. J. Swivel and snap-hook. (Design)	June 27, 1871
121,039	Beckwith, Hiram, Grass Lake, Mich. Device for tightening loose tires	Nov. 21, 1871
122,215	Beckwith, Nelson F., Omro, Wis. Head-block	Dec. 26, 1871
113,724	Beckwith, William G., Newark, N. J. Sewing-machine	April 18, 1871
	Bedessem, Michael, and Peter Boesen. (See Boesen & Bedessem.)	
116,666	Bedford, Alma, Coldwater, Mich. Thill-coupling. (Antedated June 29, 1871)	July 4, 1871
5,365	Bedichiner, Isaac, Philadelphia, Pa. Badge. (Design)	Nov. 21, 1871
119,558	Bee, Asa, Lancaster, Mass. Turbine water-wheel	Oct. 3, 1871
116,259	Bee, Benjamin F., Harwich, Mass. Sectional boiler	June 27, 1871
121,983	Beebe, Calvin T., assignor of one-half interest to Elihu Cooley, Jackson, Mich. Manufacture of barn-forks	Dec. 19, 1871
114,906	Beebe, Henry, Jersey City Heights, N. J. Wick-regulator for lamps.	May 16, 1871
112,110	Beebe, Theophilus, Northport, N. Y. Washing-machine	Feb. 28, 1871
121,747	Beebe, William S., Joseph T. Baynes, and Abraham A. King, West Troy, N. Y. Knife-cleaner	Dec. 12, 1871
	Beecher, Eugene, <i>et al.</i> (See Jeffers, A. Perley M., assignor.)	
116,012	Beecher, Henry M., Plantsville, Conn. Die for forming carriage-shackles.	June 20, 1871
118,780	Same.....Carriage-clip blank, and dies for making the same.	Sept. 12, 1871
113,481	Beecher, William Fordyce, Pittsburgh, Pa. Fire-chamber of puddling, steam-boiler, and other furnaces	April 11, 1871
114,515	Beek, Albert G., Philadelphia, Pa. Ironing-board	May 9, 1871
112,008	Beekman, William T., Petersburg, Ill. Hand-car	Feb. 21, 1871
117,146	Beeman, Sheldon S., Saint Albans, Vt. Standard for railway-cars.	July 18, 1871
114,516	Beemer, Levi, Libertyville, N. J. Portable butter-tray	May 9, 1871
112,767	Beeny, Charles, Albany, N. Y. Hat and cap holder	Mar. 21, 1871
117,730	Beer, Joseph W., and Absalom W., Rural Valley, Pa. Carriage axle and boxing.	Aug. 8, 1871
114,752	Beer, Peter, Detroit, Mich. Paper box	May 16, 1871
113,968	Beers, Charles C., Boston, Mass. Apparatus for carbureting air	April 25, 1871
112,313	Beers, George W., Bridgeport, Conn. Hinge for carriage-doors.	Mar. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,168	Beers, John B., San Francisco, Cal. Atmospheric pressure attachment for dental plates.	Jan. 24, 1871
121,040	Beers, John D., Philadelphia, Pa. Journal-box. (Antedated Nov. 2, 1871)....	Nov. 21, 1871
115,016	Beers, William, Milan, Ohio. Wagon-tongue support	May 23, 1871
4,490	Same (Reissue)	Aug. 1, 1871
4,916	Beery, Simon, <i>et al.</i> (See Barnett, William N., assignor) (Reissue.)	
119,006	Beesley, Jacob, and Josiah J. Ferris, assignors to Charles Noble & Co., Philadelphia, Pa. Plate of a stove. (Design)	May 23, 1871
	Beggo, Eugene, Paterson, N. J. Toy locomotive and track	Sept. 19, 1871
	Behel, Jacob, and Michael V. Doyle. (See Doyle & Behel.)	
5,267	Behne, Andrew C., and Robert Marks. (See Marks & Behne.)	
113,838	Beiderhase, Bernhard D., New York, N. Y. Spoon-handle..... (Design) ..	Sept. 19, 1871
114,637	Beidler, George A., Philadelphia, Pa. Wooden pavement.....	April 18, 1871
111,425	Same.....Propulsion of vessels.....	May 9, 1871
120,023	Beidler, Henry M., Philadelphia, Pa. Wood-pavement	Jan. 31, 1871
114,753	Belfield, Henry, Philadelphia, Pa. Machine for cutting the teeth of wheels...	Oct. 17, 1871
116,799	Belknap, Elbridge G., Philadelphia, Pa. Coal-screen	May 16, 1871
119,689	Belknap, Jackson Ogden, New Orleans, La. Ornamental advertising medium...	July 11, 1871
112,111	Belknap, Moody, Philadelphia, Pa. Spike-machine	Oct. 10, 1871
	Bell, Alexander Dalrymple, assignor to Joseph Wesley Stowe, San Francisco, Cal. Apparatus for carbureting air	Feb. 28, 1871
112,009	Bell, Charles E., Greenfield, Ohio. Window-washer	Feb. 21, 1871
	Bell, Charles S. (See Bradley, Joseph H., assignor.)	
112,768	Bell, Daniel W., Saint Louis, Mo. Pump-piston.....	Mar. 21, 1871
114,096	Bell, Elbert A., Meriden, Conn. Adjustable bevel	April 25, 1871
111,606	Bell, James A., assignor to self and Henry Z. Stetler, Tyrone, Pa. Feather-renovator	Feb. 7, 1871
114,517	Bell, John, Dover, N. H. Manufacture of acetate of lime from pyroligneous acid. (Antedated April 27, 1871)	May 9, 1871
117,244	Bell, Joseph, Carrollton, Mo. Water-wheel	July 25, 1871
115,153	Bell, Landrow, Washington, D. C. Smoke-stack for locomotives. (Antedated May 19, 1871)	May 23, 1871
120,181	Bell, Stephen A., Newtown, Ohio. Machine for picking millstones	Oct. 24, 1871
111,302	Bell, Thomas M., New York, N. Y. Milk-can	Jan. 31, 1871
119,559	Same.....same.....	Oct. 3, 1871
	Bell, Thomas W. (See Miller, James B., assignor.)	
111,807	Bell, Van, Seville, Ohio. Bed-bottom	Feb. 14, 1871
120,364	Bell, William, Buffalo, N. Y. Drawing-stand.....	Oct. 31, 1871
	Bell, William, and George E. Brown. (See Brown & Bell.)	
121,925	Bell, William Gibson, Boston, Mass. Apparatus for curing meat	Dec. 19, 1871
4,694	Bellamy, John H., Charlestown, Mass. Picture-frame..... (Design) ..	Mar. 7, 1871
4,853	Bellamy, John H., assignor to Elbridge Wolcott and Jonas C. Young, Charlestown, Mass. Bracket..... (Design) ..	May 2, 1871
4,854	Same.....Front of a catch-all..... (Design) ..	May 2, 1871
4,939	Same.....Clock-front..... (Design) ..	May 23, 1871
116,676	Bellerive, Francis H., Plattsburgh, N. Y. Baggage-check	July 4, 1871
118,676	Bellis, William, Indianapolis, Ind. Operating throttle-valve	Sept. 5, 1871
115,416	Bellows, Hartwell H., Brooklyn, N. Y. Wash-board	May 30, 1871
122,146	Belnap, Lester D., assignor of one-half interest to George W. Bullock, Jonesville, Mich. Thrill-coupling	Dec. 26, 1871
117,855	Belt, William S., Cincinnati, Ohio. Metallic roofing	Aug. 8, 1871
110,623	Bement, Charles S., assignor to Hart Manufacturing Company, Kensington, Conn. Machine for marking squares	Jan. 3, 1871
	Bemis, Henry, and William M. Bingham. (See Bingham & Bemis.)	
121,318	Bender, Charles, Phoenixville, Pa. Metallic column	Nov. 28, 1871
115,417	Bender, Richard W., Boston, Mass. Refining raw sugar.....	May 30, 1871
113,388	Bender, William J., Cincinnati, Ohio. Attaching marble tops and backs of wash-stands	April 4, 1871
	Benedict & Burnham Manufacturing Company. (See Lewis, William F., assignor.)	
	Benedict, John, administrator. (See Leonard, Andrew) (Two cases.)	
115,810	Benedict, Joseph R., Williamson, N. Y. Hoisting-apparatus.....	June 13, 1871
119,110	Benedict, Julius S., Bedford, Ohio. Gate	Sept. 19, 1871
	Benham, James W., and Francis F. Warner. (See Warner & Benham.)	
121,447	Benjamin, Edwin, Chicago, Ill. Cutter for molding-machines.....	Dec. 5, 1871
	Benjamin, John, and Volkert O. Hart. (See Hart & Benjamin.)	
119,735	Benneckendorf, Albert, Hoboken, N. J. Mechanical movement.....	Oct. 10, 1871
	Bennet, Edwin R. (See Wood, Joseph, assignor.)	
117,731	Bennett, Edmund James, Port Huron, Mich. Spring-vent for casks.....	Aug. 8, 1871
119,736	Bennett, George M., Burlington, Iowa. Wagon-brake.....	Oct. 10, 1871
120,615	Bennett, Harrison, Waterbury, Conn. Means for securing the clothing on carding-machine cylinders	Nov. 7, 1871
121,272	Bennett, John M., Jaynesville, Iowa. Insect-destroyer	Nov. 28, 1871
119,560	Bennett, Orrin E., Cannonsville, N. Y. Carriage-spring attachment.....	Oct. 3, 1871
119,300	Bennett, Silas, New Castle, Pa. Wash-boiler	Sept. 26, 1871
117,245	Bennett, William N., Illyria, Iowa. Gun-lock	July 25, 1871
115,017	Benninghofen, August, assignor to Benninghofen, Northrup & Co., Hamilton, Ohio. Seasoning wagon-hubs.....	May 23, 1871
113,839	Bennison, Henry L., England. Rotary-engine	April 18, 1871
112,678	Bennor, Joseph, Philadelphia, Pa. Sewing-machine	Mar. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,208	Benns, George, assignor to self and Lucius M. West, Rockford, Ill. Sad-iron heater.....	Feb. 23, 1871
	Benson, Allen W., and John C. Anderson. (See Anderson & Benson.)	
116,141	Benson, Benjamin S., Baltimore, Md. Machine for molding pipe.....	June 20, 1871
116,540	Benson, Beverly L., Fairview, Ind. Shifting buggy-top.....	July 4, 1871
117,595	Benson, John, Belle Plains, Iowa. Harrow. (Antedated July 23, 1871).....	Aug. 1, 1871
114,515	Benson, John, assignor to George McCord, Yonkers, N. Y. Street-lamp.....	May 9, 1871
115,811	Benson, Lorenzo D. and Leander C., North Jackson, Pa. Stave-dressing machine.....	June 13, 1871
119,444	Benson, Olof, and John G. Folk, Chicago, Ill. Dumping-car.....	Oct. 3, 1871
111,426	Bent, Samuel S., Port Chester, N. Y. Stall for horses.....	Jan. 31, 1871
112,887	Same..... Iron railing.....	Mar. 21, 1871
114,392	Same..... Stable-fixture.....	May 2, 1871
	Bentel, Frederick, <i>et al.</i> (See McBeth, Bentel, Margedant & Climer.)	
118,677	Benten, Albert Frederick, assignor to self and Farrell Jerome O'Reilly, San Francisco, Cal. Bed-lounge. (Antedated Aug. 11, 1871).....	Sept. 5, 1871
112,868	Bentley, Warren W., Lee Township, Mich. Clevis-hook for double-trees.....	Mar. 21, 1871
120,698	Benton, Burr, Weesaw, Mich. Bee-hive.....	Nov. 7, 1871
	Benton, Charles C., and Albert Fickett. (See Fickett & Benton.)	
116,918	Benton, Edward F., Buffalo, N. Y. Bronzing-machine.....	July 11, 1871
119,498	Same..... same.....	Oct. 3, 1871
122,216	Same..... same.....	Dec. 26, 1871
113,969	Benton, Goderich C., Port Huron, Mich. Stove-drum.....	April 25, 1871
4,491	Berdan, Hiram, assignor to the Berdan Fire-Arms Manufacturing Company, New York, N. Y. Metallic cartridge..... (Reissue).....	July 1, 1871
5,211	Berger, Henry, New York, N. Y. Oblong center piece..... (Design).....	Aug. 22, 1871
5,212	Same..... Star center-piece..... (Design).....	Aug. 22, 1871
5,213	Same..... Esentcheon center-piece..... (Design).....	Aug. 22, 1871
5,447	Same..... Center-piece..... (Design).....	Dec. 26, 1871
	Bergin, Daniel. (See Roelofs, Anthony, assignor.)	
118,096	Bergman, William, assignor to self and Adam Keller, Philadelphia, Pa. Chair and ladder.....	Aug. 15, 1871
121,319	Bergner, George, Washington, Mo. Pruning-shears.....	Nov. 23, 1871
113,726	Bergner, Theodore, assignor to James W. Queen & Co., Philadelphia, Pa. Ruler-attachment for drawing-boards.....	April 18, 1871
115,018	Bergner, Theodore, and Sigmund Zeisse, Philadelphia, Pa. Cooling-apparatus for beer, ale, &c.....	May 23, 1871
	Bergner, Theodore, and Charles T. Bonsal. (See Bonsal & Bergner.)	
112,010	Bergquist, Petter, Austin, Minn. Portable water-closet.....	Feb. 21, 1871
113,389	Berkeley, Norborne, Aldie, Va. Door-mat.....	April 4, 1871
118,678	Berkeley, Norborne, assignor to self and Charles B. Wildman, Aldie, Va. Combined carriage-jack, bag-holder, and weighing-scale.....	Sept. 5, 1871
115,154	Berlioz, Auguste Prosper, France. Electric lighting-apparatus. (Antedated May 17, 1871).....	May 23, 1871
119,215	Bernard, Cleophas, assignor of 15-100 interest to Timothy Lague, Florida, Mass. Rock-drilling machine.....	Sept. 26, 1871
121,841	Berndt, Bernhard, and Franz Barsch, assignors of two-thirds interest to William P. Reiley and Thomas Maitland, Williamsport, Pa. Fastening carriage-wheels.....	Dec. 12, 1871
	Berney, James. (See Dearborn, Gilbert K., assignor.)	
4,370	Berrey, William, assignor to Henry B. Richmond, Boston, Mass. Detergent compound..... (Reissue).....	May 9, 1871
113,727	Berry, Charles Hezzleton, Natick, Mass. Washing-machine.....	April 18, 1871
120,699	Berry, Charles H., Brooklyn, N. Y. Hat-blocking machine.....	Nov. 7, 1871
118,328	Berry, James, assignor to self and Henry Berry, Buffalo, N. Y. Riveting-apparatus.....	Aug. 22, 1871
112,531	Berry, Robert M., Brooklyn, N. Y. Feeding-mechanism for sewing-machines. (Antedated Feb. 23, 1871).....	Mar. 14, 1871
	Berry, William D., <i>et al.</i> (See Wilson, John T., assignor.)	
	Berryman Regulator and Alarm Company. (See Berryman, Robert, assignor.)	
115,682	Berryman, Robert, Hartford, Conn. Feed-water heater for steam-boilers.....	June 6, 1871
117,372	Same..... Steam-trap.....	July 25, 1871
111,032	Berryman, Robert, assignor to the Berryman Regulator and Alarm Company, Hartford, Conn. Water or steam valve.....	Jan. 17, 1871
118,679	Same..... Feed-water regulator for steam-boilers.....	Sept. 5, 1871
114,255	Berryman, Robert, Hartford, Conn., and Rufus N. Platt, Philadelphia, Pa. Automatic boiler-feeder.....	May 2, 1871
4,309	Bertrand, Theophilus F. and Peter Sames, Rockford, Ill. Cultivator. (Reissue).....	Mar. 28, 1871
4,581	Same..... same.....	Oct. 10, 1871
117,246	Bessemer, Henry, England. Construction and mode of working blast-furnaces.....	July 25, 1871
111,247	Same..... Furnace for the manufacture of malleable iron and steel.....	July 25, 1871
117,248	Same..... Bessemer converter, for converting crude iron into steel.....	July 25, 1871
117,249	Same..... Apparatus for melting and casting metals under pressure.....	July 25, 1871
117,250	Same..... Construction and operation of metallurgical furnaces.....	July 25, 1871
117,507	Same..... Process and apparatus for the treatment of crude or pig iron.....	Aug. 1, 1871
117,968	Same..... Machinery and buildings for the manufacture of iron and steel.....	Aug. 15, 1871
114,097	Best, Daniel, Yuba, Cal. Grain-separator.....	April 25, 1871
119,301	Bethel, Thomas W., Brooklyn, N. Y. Medical compound for consumption, &c.....	Sept. 26, 1871
119,260	Bethune, James N., Warrenton, Va. Motive-power.....	Sept. 26, 1871
120,932	Betts, Alfred H., Cleveland, Ohio. Gate.....	Nov. 14, 1871
	Betts, William. (See Patterson, James, assignor.)	
110,950	Betts, William C., Brooklyn, N. Y. Railroad-car ventilator.....	Jan. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,155	Bentel, Frederick, <i>et al.</i> (See McBeth, Bentel & Margedant) (Design.)	
111,303	Beuttel, Charles, Cincinnati, Ohio. Feeding-mechanism for sewing-machines..	May 23, 1871
114,098	Bevan, John, Port Richmond, N. Y., and Benjamin W. Hitchcock, West Flushing, N. Y. Pneumatic spring	Jan. 31, 1871
111,304	Bevan, Samuel, assignor to Henry Disston & Son, Philadelphia, Pa. Polishing-machine.....	April 25, 1871
114,393	Bevans, Alexander L., Flushing, N. Y. Printing-press guide.....	Jan. 31, 1871
117,969	Bever, John T., and Pauline S., Lathrop, Mo. Soap.....	May 2, 1871
117,969	Bever, John T., and Isaac Cook. (See Cook & Bever.)	
117,969	Beverley, John M., Chicago, Ill. Mosquito-fan. (Antedated July 31, 1871).....	Aug. 15, 1871
119,812	Beyer, Harvey, and W. Bolton Rogerson. (See Rogerson & Beyer.)	
119,812	Beyer, Louis, and Rudolph Hines. (See Hines & Beyer) (Two cases.)	
119,812	Bevill, Robert, Bowie County, Tex. Medical compound for treating chills, fever, &c.....	Oct. 10, 1871
112,209	Bibb, Bentley C. (See Klotz, Philip, assignor.)	
113,482	Bibb, William C., Madison, Ga. Combined cotton chopper, scraper, &c	Feb. 28, 1871
118,184	Same..... Combined plow and seeder.....	April 11, 1871
118,329	Same..... Morgan County, Ga. Car-coupling	Aug. 22, 1871
118,330	Same..... Madison County, Ga. Propulsion of canal-boats.....	Aug. 22, 1871
119,216	Same..... Railway.....	Aug. 22, 1871
4,666	Same..... Steam wagon and plow.....	Sept. 26, 1871
118,336	Bibber, A. H. (See Forrest, David, assignor.)	
119,007	Bibber, Francis F., South Boston, Mass. Railroad-station indicator .. (Design.)	Feb. 21, 1871
119,007	Bickel, Christian, and Jacob F. Leibold, Delaware, Ohio. Harvester-dropper....	Aug. 22, 1871
119,007	Bickford, Henry, assignor to J. A. Fay & Co., Cincinnati, Ohio. Mortising-machine.....	Sept. 19, 1871
112,532	Bickford, Henry, and Hugh H. Humphrey. (See Humphrey & Bickford.)	
118,581	Biddle, Jacob S., and Theodore S. Lingenfelter, Hattonville, Pa. Fruit-dryer..	Mar. 14, 1871
121,076	Biddle, Joseph, Edinburgh, Pa. Animal-trap	Aug. 29, 1871
113,006	Bidwell, George H. (See Morrill, Charles, assignor.)	
113,006	Bidwell, Henry M., assignor to self and Stillman Moore, New Haven, Conn. Carriage-curtain fastener.....	Nov. 21, 1871
113,007	Bidwell, Jason A., East Boston, Mass. Wood-screw	Mar. 28, 1871
113,007	Bidwell, Jason A., and D. M. Robertson. (See Robertson & Bidwell.)	
113,007	Biehl, Charles, Albany, N. Y. Combined bordering and drain tile	Mar. 28, 1871
113,483	Bigelow Carpet Company. (See Magee, John, assignor.) (Nine cases.) (Design.)	
113,483	Same..... (See Pennell, Thomas, assignor.) (Two cases.) (Design.)	
113,483	Same..... (See Neil, John, assignor.) (Two cases.) (Design.)	
113,483	Same..... (See Buzzell, John P., assignor.)	
113,483	Bigelow, Erastus Brigham, Boston, Mass. Let-off mechanism for looms	April 11, 1871
113,483	Same..... Power-loom for weaving wire-cloth	Sept. 28, 1871
113,008	Bigelow, Everett W. (See Bradley, George I., assignor.)	
113,008	Bigelow, George B., and John, <i>et al.</i> (See Duchemin, William, assignor.)	
113,009	Bigelow, Horace H., Worcester, Mass. Awl for heel-machines.....	Mar. 28, 1871
113,618	Same..... Machine for turning rands for shoes.....	Mar. 28, 1871
116,400	Same..... Machine for cutting leather.....	April 11, 1871
116,400	Same..... Heel for boots and shoes.....	June 27, 1871
115,812	Bigelow, Lucius A. (See McCracken, Edwin D., assignor.)	
119,111	Bigelow, Lyman G., Grand Rapids, Mich. Photographic background.....	June 13, 1871
119,111	Same..... Photographer's curtain	Sept. 19, 1871
112,409	Bigger, James J., and William A. Pugh. (See Pugh & Bigger.)	
112,409	Bigger, Thomas J., Kansas City, Mo. Manufacture of ice	Mar. 7, 1871
118,332	Bilbrough, Samuel. (See Keane, Patrick, assignor.)	
118,332	Bilgram, Hugo, Philadelphia, Pa. Speed-indicator.....	Aug. 22, 1871
111,808	Bilhimer, Cyrus F., Irwin's Station, Pa. Corn-planter.....	Feb. 14, 1871
110,822	Billings, Charles E., Hartford, Conn. Machine for drilling shuttles.....	Jan. 10, 1871
110,822	Same..... (See Colston, Theodore, assignor.)	
116,541	Billings, George W., Chicago, Ill. Die for making washers.....	July 4, 1871
120,933	Same..... Railway-crossing. (Antedated Nov. 13, 1871).....	Nov. 14, 1871
118,837	Billings, Orson, Elyria, Ohio. Harvester.....	Sept. 12, 1871
112,769	Billings, Uriah, Cambridgeport, Mass. Horseshoe-machine	Mar. 21, 1871
116,142	Binder, Carl Frederick, Philadelphia, Pa. Purifying pyroigneous acid.....	June 20, 1871
118,781	Binder, Henry, Saint Louis, Mo. Reversible curtain-fastener.....	Sept. 12, 1871
115,926	Bingham, John Edward, Great Britain. Electro-plating with tin	June 13, 1871
116,401	Bingham, William M., and Henry Bemis, Rochester, N. Y. Self-watering vase..	June 27, 1871
116,919	Binkard, Thomas, and Robert H. Boal, Urbana, Ohio. Fan-attachment for tables.	July 11, 1871
116,260	Binkly, Lemuel G., Baughman, Ohio. Process for bolting flour	June 27, 1871
119,915	Binney, Benjamin S., Somerville, Mass. Paper-bag machine.....	Oct. 17, 1871
5,320	Binzer, Charles, New York, N. Y. Lamp-shade.....	Oct. 24, 1871
111,305	Birch, R. De Witt, Philadelphia, Pa. Manufacture of copperas.....	Jan. 31, 1871
114,099	Birchard, John F., Milwaukee, Wis. Ticket-case for railroad stations. (Antedated April 13, 1871).....	April 25, 1871
5,315	Same..... Eseritoire..... (Design.)	Oct. 17, 1871
112,314	Birckhead, James, jr., Baltimore, Md. Stove-leg	Mar. 7, 1871
112,210	Bird, Charles, assignor to self, Charles J. Field, and T. P. Sargent, Philadelphia, Pa. Door-check	Feb. 28, 1871
114,394	Bird, James R., assignor to the New York Rubber Company, Brooklyn, N. Y. Vulcanized rubber-tube for grain-drills, &c.....	May 2, 1871
120,616	Birdseye, Isaac W., Birmingham, Conn. Bustle	Nov. 7, 1871
116,013	Birkenhead, John, Canton, Mass. Bed-clothes retainer.....	June 20, 1871
119,072	Birket, John C., Peoria, Ill. Mashing-tub	Sept. 19, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,680	Bisbing, Henry, Bridgeton, N. J. Protecting unslacked lime, and apparatus therefor	Sept. 5, 1871
119,813	Bishop, Bela S., Menasha, Wis. Machine for curving saw-blades	Oct. 10, 1871
	Bishop, Edmond, and William W. Patterson. (See Patterson & Bishop.)	
115,418	Bishop, George W., Saratoga Springs, N. Y. Sash-balance	May 30, 1871
119,008	Bishop, George W., and Hugh H. Smith, Baltimore, Md. Fire-escape	Sept. 19, 1871
115,813	Bishop, Josiah, Austin, Tex. Elevator	June 13, 1871
112,315	Bishop, Orris A., Chicago, Ill. Clothes-pin	Mar. 7, 1871
120,617	Bishop, Peter B. W., assignor to self and Jephtha W. Dunn, Morristown, N. J. Machine for shrinking hat-bodies	Nov. 7, 1871
113,135	Bishop, Thomas T., and Henry J. Merret, Evansville, Ind. Sewing-machine caster	Mar. 23, 1871
	Bissel, Eugene. (See Williamson, David, assignor.)	
	Bissell & Moore Manufacturing Company. (See Moore, Daniel and Edwin, assignors).....(Reissue.)	
	Bissell, Eugene. (See Moore, Daniel, assignor.)	
	Bissell, Harvey. (See Huntley, Merritt G., assignor.)	
4,564	Bissell, Henri E., Hartford, Conn. Spring bed-bottom	Sept. 19, 1871
116,668	Bissell, Hiram, Hartford, Conn. Drain-tile machine	July 4, 1871
116,920	Same.....Drain-pipe machine	July 11, 1871
111,607	Bissell, Melville R., assignor to Salmon B. Rowley, Kalamazoo, Mich. Fruit-jar	Feb. 7, 1871
113,729	Bitner, Eli S., Lock Haven, Pa. Door-latch	April 18, 1871
	Bixby, Horace E., and George W. Richey. (See Richey & Bixby.)	
111,720	Bixby, Rufus M., Iowa City, Iowa. Water cut-off. (Antedated Feb. 2, 1871)....	Feb. 14, 1871
	Black, Charles N., administrator. (See Thompson, Moses).....(Extension.)	
117,732	Black, Green V., Jacksonville, Ill. Dental drill	Aug. 8, 1871
117,733	Same.....Universal joint for shaft-couplings	Aug. 8, 1871
114,519	Black, Horace S., Buchanan, Mich. Clothes-drier	May 9, 1871
	Black, James, and Robert E. Rogers. (See Rogers & Black).....(Reissue.)	
112,112	Black, John Q., Richland Centre, Wis. Cheese-turning apparatus	Feb. 28, 1871
	Black, J. S. (See Smith, James P., assignor.)	
115,419	Black, William, Baltimore, Md. Weighing-scale	May 30, 1871
	Black, William R. (See Hayman, William, assignor.)	
117,373	Black, William T., Erie, Pa. Base-burning stove	July 25, 1871
115,270	Blackman, James A., Decorah, Iowa. Hot-air furnace	May 30, 1871
118,425	Blackwell, Benjamin B., Jamaica, N. Y. Printers' furniture	Aug. 29, 1871
112,533	Blackwell, Ezra B., Newton, Mass. Shirt-polishing machine	Mar. 14, 1871
117,970	Blackwood, John, Madison Township, Ohio. Gang-plow	Aug. 15, 1871
	Blaffer, John A., et al. (See Windhausen, Franz, assignor).....(Two cases.)	
115,683	Blair, Valentine C., Wheatland, Pa. Elevator	June 6, 1871
	Blaisdell, Edwin A., and Robinson Brown. (See Brown & Blaisdell.)	
114,256	Blake, Christopher, Boston, Mass. Fire-extinguisher	May 2, 1871
	Blake, David. (See Dodge, James, assignor.)	
116,542	Blake, Edward S., Pittsburgh, Pa. Pitman-rod	July 4, 1871
116,014	Blake, Elisha B., Tarrytown, N. Y. Milkman's signal	June 20, 1871
118,097	Blake, Ezekiel and James E., Chicopee, Mass. Barrel and box elevator	Aug. 15, 1871
118,838	Blake, George F., Boston, Mass. Piston-packing	Sept. 12, 1871
120,565	Same.....Same	Nov. 7, 1871
121,320	Same.....Valve for direct-acting engines	Nov. 28, 1871
111,721	Blake, George W., New York, N. Y. Steam-radiator	Feb. 14, 1871
	Blake, Henry D. (See Smith, Loyst J., assignor.)	
113,970	Blake, Ira G., Worcester, Mass. Watchman's time-check clock	April 25, 1871
121,228	Blake, John W., Jefferson, Wis. Cultivator and horse-hoe. (Antedated Nov. 17, 1871).....	Nov. 23, 1871
116,402	Blake, Lyman R., Fort Wayne, Ind. Feather edging and channeling machine for boots and shoes	June 27, 1871
116,921	Same.....Channeling soles for boots and shoes	July 11, 1871
117,596	Same.....Sewing-machine for boots and shoes	Aug. 1, 1871
117,856	Same.....Machine for channeling soles of boots and shoes	Aug. 8, 1871
115,420	Blake, Richard C., Cincinnati, Ohio. Pressure-gauge	May 30, 1871
116,669	Blake, Richard C., Cincinnati, Ohio. Steam-gauge	July 4, 1871
111,306	Blake, Robert, Scranton, Pa. Apparatus for opening the eyes of picks	Jan. 31, 1871
114,520	Blakeman, Elisha D., Mount Lebanon, N. Y. Piano-violin	May 9, 1871
119,814	Blakemore, Charles C., Zanesville, Ohio. Felling-attachment for sewing-machines. (Antedated Sept. 25, 1871).....	Oct. 10, 1871
118,782	Blakeney, John W., New York, N. Y. Spring-seat	Sept. 12, 1871
	Blakeslee, Charles W., et al. (See Davis, Blakeslee & Peck.)	
116,922	Blakeslee, Edward C., Waterbury, Conn. Machine for threading sheet-metal screws	July 11, 1871
	Blakeslee, John R. (See Sprague, Edwin, assignor.)	
113,840	Blakey, William, Brooklyn, N. Y. Grain-drier	April 18, 1871
116,143	Blanchard, Abner J., Boston, Mass. Water-back for stoves	June 20, 1871
113,484	Blanchard, Jerome, Iowa Falls, Iowa. Plow	April 11, 1871
113,010	Blanchard, Joseph B., Boston, Mass. Needle for sewing-machines	Mar. 28, 1871
	Blanchard, J. M., & Co. (See Prall, William E., assignor.)	
117,251	Blanchard, Nathaniel L., Spuyten Duyvil, N. Y. Steam-boiler	July 25, 1871
117,252	Same.....Blower for chimney-stacks	July 25, 1871
118,155	Blaney, Elias, Marblehead, Mass. Machine for shaping the soles of shoes	Aug. 22, 1871
121,321	Blaney, James V. K., Chicago, Ill. Process for restoring writing or printing on charred paper	Nov. 28, 1871
114,754	Blatchly, Ambrose, San Francisco, Cal. Gearing for operating drills	May 16, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,690	Blees, Richard, Brooklyn, N. Y. Feeding-mechanism for sewing-machines....	Oct. 10, 1871
110,624	Bless, Eleazar, Indianapolis, Ind. Cutter for nail-cutting machines.....	Jan. 3, 1871
115,563	Same.....Sledge for forming cutters for nail-machines.....	June 6, 1871
112,770	Blessing, James H., assignor to self and Frederick Townsend, Albany, N. Y. Piston-rod packing.....	Mar. 21, 1871
114,257	Same.....Steam-trap.....	May 2, 1871
116,403	Same.....same.....	June 27, 1871
121,748	Same.....Apparatus for warming buildings with steam.....	Dec. 12, 1871
113,728	Blessing, James H., assignor to self and Townsend & Jackson, Albany, N. Y. Shaft-coupling.....	April 18, 1871
113,841	Same.....Friction-clutch for belt-pulleys.....	April 18, 1871
120,234	Bligh, Samuel L., Pithole City, Pa. Desk or table attachment for chairs.....	Oct. 24, 1871
120,024	Blinn, Edward E., Brewerton, N. Y. Stove-pipe drum.....	Oct. 17, 1871
116,670	Blinn, Samuel C., Tecumseh, Mich. Stave-jointer.....	July 4, 1871
4,659	Bliss, Eliphalet W., assignor to Charles Pratt, Brooklyn, N. Y. Machine for making-tin-cans..... (Reissue.)	Dec. 5, 1871
111,307	Bliss, George W., Springfield, Mass. Metallic roofing.....	Jan. 31, 1871
111,169	Bliss, John and George H., Brooklyn, N. Y. Liquid-compass.....	Jan. 24, 1871
118,681	Bliss, William H., Newport, R. I. Earth-cabinet.....	Sept. 5, 1871
	Blodan, John, and August Gebhard. (See Gebhard & Blodan.)	
	Blodgett, Charles A., et al. (See Hallowell, Elliott & Blodgett.)	
112,316	Bloede, Victor G., Brooklyn, N. Y. Manufacture of Rochelle salts and borax..	Mar. 7, 1871
121,578	Blom, Cornelius, and John Aling, Holland, Mich. Broom-head.....	Dec. 5, 1871
112,113	Blomsten, Bengt C., Waupaca, Wis. Straw-cutter.....	Feb. 23, 1871
118,186	Same.....Cultivator. (Antedated Aug. 8, 1871).....	Aug. 22, 1871
110,728	Bloodgood, John H., Bridgeport, Conn. Sash-holder.....	Jan. 3, 1871
113,971	Bloom, William H., Tiffin, Ohio. Culinary vessel.....	April 25, 1871
115,684	Bloomfield, Homer, assignor to Joseph Wesley Stow, San Francisco, Cal. Manufacture of pneumatic gas.....	June 6, 1871
	Blose, John H., et al. (See Rohrer & Blose.)	
	Blount, Haiman & Bro. (See Haiman, Elias, assignor.)	
111,427	Blue, Samuel, Danville, Pa. Cooking-stove.....	Jan. 31, 1871
121,577	Blueher, Franz., Mascoutah, Ill. Apparatus for preserving and forcing beer with cold air.....	Dec. 5, 1871
	Blundell, Henry, agent. (See Little, Robert B., assignor.)	
112,889	Blundell, William A., assignor to self, William P. Nelson, and Mathew C. Tully, Saint Louis, Mo. Attachment for harness.....	Mar. 21, 1871
	Blunt, John G., et al. (See Smith, Roswell T., assignor.)..... (Reissue.)	
	Bly, Douglas. (See Locke, Henry H., assignor.)..... (Reissue.)	
	Boal, Robert H., and Thomas S. Binkhard. (See Binkhard & Boal.)	
	Boalt, John H., et al. (See Riette, Eugene N., assignor.)	
118,426	Boardman, Harris, deceased, by Sarah A. Boardman, administratrix, Lancaster Township, Pa. Machine for making cord.....	Aug. 29, 1871
	Boardman, Joseph F., and William P. Thomas. (See Thomas & Boardman.)	
114,395	Boas, Isaac, New Orleans, La. Ditching-machine.....	May 2, 1871
	Boas, William. (See Lutz, William H., assignor.)	
115,685	Boch, Nicholas, assignor to self and W. J. Maidhof, New York, N. Y. Building-block.....	June 6, 1871
118,682	Bock, Charles and Daniel, Drum's, Pa. Shaft for sleighs.....	Sept. 5, 1871
4,837	Bockee, John J., jr., New York, N. Y. Lard-pail..... (Design.)	April 25, 1871
5,276	Same.....Grocer's can..... (Design.)	Sept. 26, 1871
	Bookins, Abraham R., et al. (See Raenchele, William, assignor.)	
	Bookus, Charles, et al. (See Tisdale, Charles D., assignor.)..... (Reissue.)	
121,984	Bodenheimer, Louis, Paducah, Ky. Medical compound or fever and ague cure.	Dec. 19, 1871
118,187	Bodwell, Alrick M., Ann Arbor, Mich. School desk and seat.....	Aug. 22, 1871
	Boekenkamp, Charles G., et al. (See Walton, William E., assignor.)	
	Boeklen, Reinhold, and Henry Forstrick. (See Forstrick & Boeklen.)	
112,410	Boeklen, Reinhold, assignor to self and Henry Forstrick, Brooklyn, N. Y. Machine for heading bolts and spikes.....	Mar. 7, 1871
112,890	Boesch, Emil, San Francisco, Cal. Advertising-lamp.....	Mar. 21, 1871
122,217	Same.....Lamp.....	Dec. 26, 1871
113,011	Boesen, Peter, and Michael Bedessem, Kerosha, Wis. Culinary boiler.....	Mar. 28, 1871
119,073	Bogardus, Abram, Matteawan, N. Y. Hat.....	Sept. 19, 1871
	Bogardus, Alfred, and Charles Lewis Anderson. (See Anderson & Bogardus.)	
110,729	Bogart, Abraham L., New York, N. Y. Gas-apparatus.....	Jan. 3, 1871
119,561	Bogart, Abraham L., New York, N. Y. Apparatus for lighting gas-jets by induced current of electricity.....	Oct. 3, 1871
	Bogal, William, et al. (See Fisher, Charles Friedrich, assignor.)	
122,218	Bogert, Charles A., Bay City, Mich. Combined walking-cane and billiard-cue..	Dec. 26, 1871
	Bogert, Gilbert J., and Eben Peck. (See Myers & Eunson, assignors.).... (Disclaimer.)	
119,261	Boggs, David, and Hermann Rohs, Cynthiana, Ky. Hand-cultivator.....	Sept. 26, 1871
120,934	Bogk, William, Milwaukee, Wis. Refrigerator.....	Nov. 14, 1871
122,147	Bogle, Ralph, Milton, Pa. Combined coal hod and sifter.....	Dec. 26, 1871
112,011	Bohannon, Wilson, Brooklyn, N. Y. Seal-lock.....	Feb. 21, 1871
112,211	Bohannon, Wilson, assignor to American Seal-Lock Company, Brooklyn, N. Y. Keyless padlock.....	Feb. 28, 1871
112,891	Bohler, John J., Westfield, Mass. Whip-stock.....	Mar. 21, 1871
116,404	Bohn, John C., Allegheny, Pa. Spur.....	June 27, 1871
112,012	Boice, Peter, Chatham Village, N. Y. Machine for cleaning garden-walks..	Feb. 21, 1871
4,501	Boileau, Etienne, Saint Louis, Mo. Fire-plate for stoves..... (Reissue.)	Aug. 8, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,562	Boileau, Etienne, Saint Louis, Mo. Fire-plate for boiler-furnaces.....	Oct. 3, 1871
117,039	Boiles, James, New York, N. Y. Stern-bearing for propellers.....	July 18, 1871
110,730	Boland, Frederick W., New York, N. Y. Shuttle for sewing-machines.....	Jan. 3, 1871
4,701	Boland, Matthew F., Philadelphia, Pa. Hame-top..... (Design) ..	Mar. 14, 1871
112,892	Bolander, Aaron, Akron, Ohio. Mowing-machine.....	Mar. 21, 1871
118,168	Same..... Machine for crushing corn.....	Aug. 22, 1871
113,619	Boldemann, Otto, New York, N. Y. Refuign and disinfecting apparatus.....	April 11, 1871
116,144	Bolin, James P., Orangeburgh County, S. C. Cotton-press.....	June 20, 1871
121,077	Bollerman, Dominic L., assignor to Jesse J. Davis, Mount Vernon, N. Y. Hammer-flange butt for piano-action.....	Nov. 21, 1871
120,365	Bolles, Julius, Jackson, Ohio. Apparatus for elevating hay.....	Oct. 31, 1871
120,235	Bollman, George W., Pittsburgh, Pa. Manufacture of boilers, steam-cylinders, fittings, &c.....	Oct. 24, 1871
114,755	Bolman, Edward, and George S. W. Clarke, Canada. Car-coupling.....	May 16, 1871
	Bolster, Solomon A., executor. (See Griggs, George S.) (Two cases.) (Extension.)	
117,971	Bolt, Daniel A., Harrisburgh, Pa. Hoisting-machine.....	Aug. 15, 1871
119,737	Bolthoff, Henry, Central City, Colo. Device for cutting stencil-plates.....	Oct. 10, 1871
121,985	Same..... Stamp-guide.....	Dec. 19, 1871
112,114	Bolton, N. H., Omro, Wis. Sawing-machine.....	Feb. 28, 1871
120,700	Same..... Machine for sharpening saws.....	Nov. 7, 1871
114,100	Bolton, Simeon R., assignor to self, Hannibal Felt, and Pascal P. Child, Prescott, Mo. Wagon-brake.....	April 25, 1871
120,483	Bolz, George J., Michael Grabner, and Julius M. Jagel, New York, N. Y. Bird-cage. (Antedated Oct. 27, 1871).....	Oct. 31, 1871
111,511	Bomby, Priscus E., Espy, Pa. Apparatus for oiling fellies, spokes, &c.....	Feb. 7, 1871
114,396	Bond, Asa M., Concord, N. H. Machine for preparing beefsteak.....	May 2, 1871
	Bond, E. T. (See Balch, Frederic A., assignor.)	
118,427	Bond, Howard B., assignor to self and James B. Brice, Terrebonne Parish, La. Defecating and bleaching saccharine matter.....	Aug. 29, 1871
111,428	Bond, Joel L., Saint Louis, Mo. Combined gang and subsoil plow.....	Jan. 31, 1871
113,390	Same..... Gang and subsoil plow.....	April 4, 1871
	Bond, John Wesley, and William Allen. (See Allen & Bond.)	
114,521	Bond, Spencer C., Hainesville, Ill. Alarm-bell.....	May 9, 1871
121,483	Bond, Virgil A., Cotton Gin, Texas. Pipe and cigar-holder.....	Dec. 5, 1871
115,271	Bond, William, Windsorville, Conn. Scroll for operating the carriages of spinning-mules.....	May 30, 1871
	Bonetti, Pietro, and Constantine Wegscheider. (See Wegscheider & Bonetti) ..	
110,731	Bonnell, Lansing, Milwaukee, Wis. Hot-air furnace.....	Jan. 3, 1871
4,331	Bonnell, William H., assignor to self and Horace Parmelee, Buffalo, N. Y. Lantern..... (Division A, reissue) ..	April 11, 1871
4,332	Same..... Lantern..... (Division B, reissue) ..	April 11, 1871
	Bonnell, William H., et al. (See Orphy, John, assignor.)	
112,534	Bonneval, Eduardo, Boston, Mass. Car brake and starter.....	Mar. 14, 1871
111,308	Bonney, Olpha, jr., San Francisco, Cal. Horse hay-rake.....	Jan. 31, 1871
117,857	Bonsal, Charles T., and Theodore Bergner, Philadelphia, Pa. Air-pressure tap. Bonzano, Adolphus, and Thomas C. Clark. (See Clarke & Bonzano.) (Two cases.)	Aug. 8, 1871
114,618	Booher, Jesse, Dayton, Ohio. Tree-tub.....	May 9, 1871
116,800	Boon, Alonzo T., and Lucien Mills, assignor to selves, Frank Hughes, and W. S. Dewey, Galesburgh, Ill. Gate and door spring.....	July 11, 1871
117,508	Boon, Alonzo T., David M. Orsborn, and George Geer, Galesburgh, Ill. Machine for turning calks of horseshoes.....	Aug. 1, 1871
120,147	Boone, John L., assignor to self and Milton A. Wheaton, San Francisco, Cal. Roller-skate. (Antedated Oct. 3, 1871).....	Oct. 24, 1871
112,510	Boone, Simpson P., Americus, Ga. Commode and wash-stand combined.....	Aug. 29, 1871
113,247	Booraem, John V. V., New York, N. Y. Valve for steam-pumps.....	April 4, 1871
113,248	Same..... same.....	April 4, 1871
114,756	Boorn, Samuel, Lowell, Mass. Loom.....	May 16, 1871
114,397	Boot, Henry, assignor to Thomas Dolan, Philadelphia, Pa. Knitted fabric.....	May 2, 1871
113,485	Boote, John J. K., and William A. Gibson, Cleveland, Ohio. Elastic cement for lining petroleum barrels.....	April 11, 1871
111,722	Booth, Alfred, Chicago, Ill. Refrigerating oyster-can.....	Feb. 14, 1871
	Booth, B. F. (See Devore, Leonard, assignor.)	
	Booth, George, & Co. (See White, Henry Clay, assignor.)	
	Same..... (See Armbruster, Jacob H., assignor.)	
121,842	Booth, James, assignor to John Dobson, Pottstown, Pa. Harness-mechanism for looms.....	Dec. 12, 1871
115,272	Booth, Nathan, Cheshire, Conn. Washing-machine.....	May 30, 1871
111,170	Boothroyd, Joseph, Michigan City, Ind. Car-coupling.....	Jan. 31, 1871
110,625	Booton, Sinclair, Seguin, Texas. Shot case and distributor.....	Jan. 3, 1871
112,893	Bootsman, Theodore, Tompkinsville, N. Y. Portable railway.....	Mar. 21, 1871
121,701	Booze, Anderson, Buchanan, Va. Still for spirits.....	Nov. 7, 1871
122,148	Boozer, John, Potter's Mills, Pa. Grain and seed separator.....	Dec. 26, 1871
112,679	Boozer, William H., Potter's Mills, Pa. Loom.....	Mar. 14, 1871
114,398	Borein, Peter R., San Leandro, Cal. Roller-skate.....	May 2, 1871
114,399	Borger, Peter J., Cincinnati, Ohio. Safety-device for hoists.....	May 2, 1871
110,732	Borgfeldt, Nicholas H., New York, N. Y. Cigar-mold.....	Jan. 3, 1871
115,421	Borgort, John A., Jersey City, N. J. Spike-extractor.....	May 30, 1871
117,734	Borland, Andrew J., Charlestown, Iowa. Wheel-plow.....	Aug. 8, 1871
	Borland, Thomas H., and Samuel C. Murdock. (See Murdock & Borland.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,217	Borsch, John L., Philadelphia, Pa. Shuttle-treading device for sewing-machine.	Sept. 26, 1871
113,136	Borst, Valentin, New York, N. Y. Harness-saddle	Mar. 28, 1871
119,112	Same.....same	Sept. 19, 1871
111,309	Borthwick, John A., assignor to self and George W. Hess, Philadelphia, Pa. Hat supporter and ventilator combined	Jan. 31, 1871
111,171	Bosart, Timothy L., jr., Indianapolis, Ind. Coal-box	Jan. 24, 1871
114,522	Bosley, Elijah M., Baltimore, Md. Steam-radiator	May 9, 1871
118,532	Bossee, Oscar, Millbrae, Cal. Hay-press	Aug. 29, 1871
5,296	Bostick, Emanuel, assignor to self and Erastus B. Kunkle, Fort Wayne, Ind. Agitating-plate for egg-beaters.....(Design)	Oct. 3, 1871
115,019	Bostock, Edward, Philadelphia, Pa. Adjustable ruler	May 23, 1871
	Boston Belting Company. (See Holt, John F., assignor).....(Reissue.)	
	Boston, William, and George E. Johnson. (See Johnson & Boston.)	
	Bostwick, Emanuel. (See Kunkle, Erastus B., assignor.)	
111,902	Bostwick, Jabez A., New York, N. Y. Tap for oil-cans	Feb. 21, 1871
112,771	Same.....Tap and nozzle for oil-cans	Mar. 21, 1871
113,137	Same.....Nozzle for oil-cans	Mar. 28, 1871
120,702	Same.....Nozzle and cap for oil-cans	Nov. 7, 1871
121,579	Same.....Tap for oil-cans	Dec. 5, 1871
116,923	Bostwick, Seymour A., Waltham, Mass. Machine for cutting sheet-metal.....	July 11, 1871
118,189	Boswell, Daniel, Green Castle, Ind. Mole-trap	Aug. 22, 1871
112,411	Boswell, Joseph and Levi M., Jonathan Palmer, and Jonathan H. James, assignors to selves and Thomas Starbuck, Wilmington, Ohio. Washing-machine.	
118,098	Boswell, William, Pontiac, Mich. Milk-rack	Mar. 7, 1871
118,783	Same.....Brick and mortar elevator	Aug. 15, 1871
4,381	Bosworth, Charles F., Milford, Conn. Fabric for head-covering.....(Reissue) ..	Sept. 12, 1871
113,730	Bosworth, Lycurgus J., Monmouth, Ill. Car-coupling.....	May 16, 1871
117,972	Bothe, Henry, Saint Louis, Mo. Omnibus-brake	April 18, 1871
117,040	Bott, William H. and Peter, West Manchester Township, Pa. Grain and straw shaker	Aug. 15, 1871
	Bottner, Fred., and George H. Johnson. (See Johnson & Bottner.)	July 18, 1871
114,400	Bouchard, Adolph, New Orleans, La. Machine for the treatment of fibrous plants.....	May 2, 1871
5,327	Bouet, Joannin, assignor to Joseph Wild & Co., England. Carpet-pattern. (Design)	Oct. 31, 1871
114,907	Boughton, John W., and Elisha C. Hussey, New York, N. Y. Table for making valuscoting	May 16, 1871
111,429	Boughton, Mary Ann, Norwalk, Conn. Mode of forming the air-chamber in dental plates	Jan. 31, 1871
113,842	Same.....Bridgeport, Conn. Cooking-stove	April 18, 1871
	Same.....Norwalk, Conn. same.....(Reissue)	Sept. 26, 1871
118,900	Boughton, Smith C., Waterford, N. Y. Bridle-bit	Sept. 12, 1871
112,680	Boult, Myron T., Battle Creek, Mich. Carving-tool	Mar. 14, 1871
116,543	Same.....Machine for carving and molding wood	July 4, 1871
112,894	Boulware, Richard A., Doniphan, Kans. Corn-planter	Mar. 21, 1871
112,535	Bourgade, Gustave, New York, N. Y. Treating marine plants to obtain gelatine, &c.....	
113,731	Bourland, Melton S., Buena Vista, Tex. Tenoning-machine.....	Mar. 14, 1871
115,422	Bourn, Augustus O., Providence, R. I. Boot and shoe.....	April 18, 1871
116,671	Same.....Steam-packing	May 30, 1871
121,446	Same.....Overshoe	July 4, 1871
5,065	Bourn, Augustus O., assignor to the National Rubber Company, Providence, R. I. Rubber overshoe.....(Design)	Nov. 28, 1871
5,066	Same.....same.....(Design)	July 4, 1871
5,067	Same.....same.....(Design)	July 4, 1871
5,098	Same.....Ornamentation of rubber boots and shoes.....(Design) ..	July 11, 1871
113,486	Bourn, Augustus O., and Isaac F. Williams, Providence, R. I. Manufacture of rubber belting.....	April 11, 1871
118,099	Same.....Bristol, R. I. Tap-sole for rubber boots and shoes	Aug. 15, 1871
114,401	Bousfield, Edward T., and James Howard. (See Howard & Bousfield.) (Two cases.)	
	Boutel, Thomas C., France. Bridge	May 2, 1871
	Bouvier, Leopold. (See Tellier, Charles, assignor.)	
113,620	Bovey, George C., Cincinnati, Ohio. Automatic fan	April 11, 1871
113,621	Same.....Key-hole guard	April 11, 1871
117,973	Same.....Clay-pulverizer	Aug. 15, 1871
120,434	Same.....Gate.....	Oct. 31, 1871
	Boyer, William L. (See Frazee, Vitruvius, assignor.)	
116,261	Bowden, Isaiah W., and Joseph D. Leach, Penobscot, Me. Device for worming and serving rigging	June 27, 1871
121,078	Bowden, William, assignor through mesne assignments to Richard Bowden and George Abbott, White's Corners, N. Y. Tire-machine. (Antedated Sept. 7, 1871)	Nov. 21, 1871
120,485	Bowdish, Nelson S., Richfield Springs, N. Y. Photographic posing-chair	Oct. 31, 1871
	Bowdoin, Henry A. (See Green, Thomas, assignor.)	
120,366	Bowen, Charles P., Silver City, Idaho. Governor for steam and other engines ..	Oct. 31, 1871
117,374	Bowen, Franklin E., Knightstown, Ind. Fanning-mill	July 25, 1871
111,033	Bowen, Hiram R., and Lorenzo D. Robnett, New Washington, Ind. Plow	Jan. 17, 1871
115,686	Bowen, James A., Boston, Mass. Inkstand	June 6, 1871
113,731	Bowen, Jesse, and Aaron T. Foster, Clarksburgh, Ohio. Cider-mill	April 18, 1871
115,423	Bowen, Noah, Columbus, Ohio. Steam-heater	May 30, 1871
116,924	Bowen, William F., Stark, Fla. Cotton-gin	July 11, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,424	Bower, Adam J., Albion, Ill. Lathe for turning axles.	May 30, 1871
115,687	Bower, James W., Princeville, Ill. Compound for covering coffins	June 6, 1871
120,847	Bowers, Isaac E., Bainbridge, Ga. Carriage-wheel.	Nov. 14, 1871
116,672	Bowker, Daniel, Boston, Mass. Jack-post for pegging shoes. (Antedated June 24, 1871)	July 4, 1871
118,901	Bowker, Horace L., Boston, Mass. Process of making beer, &c.	Sept. 12, 1871
112,212	Bowlds, Francis H., Fairfield, Ky. Shovel-plow	Feb. 23, 1871
111,312	Bowles, John, assignor to self and Samuel Bard, Augusta, Ga. Lamp for coal-oil stores.	Feb. 7, 1871
	Bowling Green Improved Cylinder and Pump Packing Company. (See Huss, John Adam.)	
121,484	Bowman, Daniel W., Tippecanoe City, Ohio. Cultivator.	Dec. 5, 1871
115,688	Bowman, John, and William G. Selby, Princeville, Ill. Combined seeder, planter, and cultivator	June 6, 1871
114,908	Bowman, William C., Clarksburgh District, Md. Corn-planter.	May 16, 1871
	Bown, John D., and Daniel Snowhill. (See Snowhill & Bown.)	
114,101	Bowne, Robert T., Fallston, Md. Gate	April 23, 1871
121,322	Boyce, Jacob A., Altoona, Pa. Washing-machine. (Antedated Nov. 11, 1871)	Nov. 23, 1871
115,020	Boyce, James, Muncie, Ind. Flax thrashing and separating machine.	May 23, 1871
111,172	Boyce, Louis D., and George H. Jones, Rochester, N. Y. Railway-car truck.	Jan. 24, 1871
5,042	Boyd, Francis, Newburgh, N. Y. Basin-front. (Design)	June 27, 1871
	Boyd, Harland. (See Moore, Charles S. and Silas A.)	
	Boyd, Harland P., and Charles S. Moore. (See Moore & Boyd.)	
120,148	Boyd, Henry, East Bridgewater, Mass. Machine for bending chain-links	Oct. 24, 1871
122,149	Boyd, James H., West Monterey, Pa. Spring-bit for cleaning and enlarging wells	Dec. 26, 1871
	Boyd, James M. (See Loomis, Kellogg H., assignor.)	
	Boyd, John, and Jacob Seeger. (See Seeger & Boyd.)	
115,927	Boyd, Louis R., New York, N. Y. Screw-cap for cans.	June 13, 1871
	Same. (See Taylor & Hodgetts, assignors.)	
	Boyd, Samuel S., et al. (See Draper, Henry V. P., assignor.)	
115,273	Boyd, William, Hartford, N. Y. Clamp for thill-coupling.	May 30, 1871
	Boyd, William L., and Jacob W. Spangler. (See Spangler & Boyd.)	
115,021	Boyden, Pardon, assignor of one-half interest to Oscar F. Nelson, Amsterdam, N. Y. Stove-grate.	May 23, 1871
112,115	Boyden, Theodore V., Bridgeport, Conn. Drill	Feb. 23, 1871
114,639	Same. Machine for heading cartridge-shells	May 9, 1871
118,583	Boyer, John, Fairfield Township, Pa. Brake for vehicles	Aug. 29, 1871
112,895	Boyer, Michael C., Norristown, Pa. Device for opening oysters.	Mar. 21, 1871
116,673	Same. Track-clearer for railway-cars.	July 4, 1871
120,025	Same. Wagon or carriage body.	Oct. 17, 1871
4,449	Boyer, William L., and Brother. (See Ingraham, Amer, assignor.)	
	Boyes, Burritt C., assignor through mesne assignments to Willcox & Gibbs Sewing-Machine Company, New York, N. Y. Folding-guide for sewing-machines. (Re-issue)	June 27, 1871
116,405	Boyland, Jephtha G., and George Buchanan, Crawfordsville, Ind. Turbine water-wheel	June 27, 1871
	Boyle, James E., and George P. Perrine. (See Perrine & Boyle)... (Extension.)	
112,412	Boyles, Ellery C., New York, N. Y. Water-wheel	Mar. 7, 1871
115,425	Boyman, Richard Boyman, England. Propulsion of vessels.	May 30, 1871
	Boynton, Ai Fitch. (See Young, George S., assignor.)	
116,406	Boynton, Edward S., assignor to self and Charles Parker, Brooklyn, N. Y. Lithographic printing-press	June 27, 1871
116,674	Boynton, Nathaniel A., New York, N. Y. Heating-stove.	July 4, 1871
116,675	Same. Stove-pipe damper	July 4, 1871
	Boynton, N. A., et al. (See Lewis, Albert C., assignor.)	
121,229	Brace, James P., assignor of one-half interest to Edward G. Danforth, Springfield, Ohio. Stove-pipe elbow	Nov. 23, 1871
110,891	Bracher, Thomas W., New York, N. Y. Embossing hat-linings	Jan. 10, 1871
113,391	Same. Sewing-machine	April 4, 1871
115,689	Same. Ornamenting hat linings and tips.	June 6, 1871
4,482	Same. Hat lining and tip	July 25, 1871
119,563	Same. Ornamenting labels and hat-linings, &c.	Oct. 3, 1871
	Braches, Charles. (See Fringes, Charles H., assignor.) (Three cases.)	
112,773	Brackett, Joseph, Lynn, Mass. Horseshoe.	Mar. 21, 1871
116,676	Brada, Charles, New York, N. Y. Folding-chair	July 4, 1871
113,012	Brada, John, New York, N. Y. Lounge-bed.	Mar. 23, 1871
120,566	Bradbury, John, assignor to Hartford Manufacturing Company, Berlin, Conn. Fire-tongs.	Nov. 7, 1871
120,567	Same. same.	Nov. 7, 1871
120,568	Same. Caster	Nov. 7, 1871
120,569	Same. Bird-cage hook	Nov. 7, 1871
113,972	Bradfield, John R., Ada, Mich. Flour bolt and reel	April 25, 1871
	Bradford, Charles K., and Eben W. Keyes. (See Keyes & Bradford.)	
115,928	Bradford, Gilbert, assignor to the Portable Steam-Engine and Manufacturing Company, Watertown, N. Y. Steam-engine	June 13, 1871
115,426	Bradford, Horace C., Providence, R. I. Sinkers-wheel for knitting-machines.	May 30, 1871
116,677	Same. Stop-motion and creel-stand for knitting-machines.	July 4, 1871
120,703	Same. Tool for setting hook-buttons	Nov. 7, 1871
111,034	Bradford, Horace C., assignor to self and H. M. Fenner, Providence, R. I. Cotton and seed huller.	Jan. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,961	Bradford, Joseph B., Calamus, Iowa. Combined boiler and steamer.....	Oct. 17, 1871
	Bradford, Purnmort, and Joseph B. Sargent. (See Sargent & Bradford.)	
5,283	Bradford, Purnmort, and Charles H., <i>et al.</i> (See Munson & Bradford.) (Design.)	
	Bradford, Purnmort, assignor to Sargent & Co., New Haven, Conn. Fastener for meeting-rails of sashes..... (Design.)	Sept. 26, 1871
119,499	Same..... Turn-button for doors, &c.....	Oct. 3, 1871
119,500	Same..... Blower-stand.....	Oct. 3, 1871
113,843	Bradford, William A., Cincinnati, Ohio. Low-water indicator.....	April 18, 1871
	Bradley & Hubbard, (See Seidensticker, Frederick R., assignor.) (Four cases.) (Design.)	
	Same..... (See Evarts & Cinquini, assignors.)	
	Same..... (See Hubbard, George R., assignor.)..... (Design.)	
	Same..... (See Cunningham, James, assignor.)	
	Same..... (See Cinquini, Pietro, assignor.)..... (Design.)	
	Bradley, Benjamin H. (See Gibbud, Eli B., assignor.)	
121,323	Bradley, David, and Asa Doney, Saratoga Springs, N. Y. Washing-machine.....	Nov. 23, 1871
114,909	Bradley, Frederick A., assignor to O. B. Worth & Co., New Haven, Conn. Top-prop for carriages.....	May 16, 1871
114,258	Bradley, George I., assignor to self and Everett W. Bigelow, Boston, Mass. Thill-coupling.....	May 2, 1871
110,626	Bradley, Henry W., Binghamton, N. Y. Compound for culinary use.....	Jan. 3, 1871
120,026	Bradley, Henry W., Plainfield, N. J. Shortening for culinary use. (Antedated Oct. 3, 1871)	Oct. 17, 1871
114,102	Bradley, John, assignor to self and Frank I. Kimball, New York, N. Y. Ventilator for railroad-cars and dwellings.....	April 25, 1871
114,640	Bradley, Joseph H., Hillsborough, Ohio. Straw-cutter.....	May 9, 1871
111,035	Bradley, Joseph H., assignor to self and Charles S. Bell, Hillsborough, Ohio. Feed-cutter.....	Jan. 17, 1871
4,419	Bradley, Lewis P., New Haven, Conn. Tape-measure..... (Reissue)	June 13, 1871
113,430	Bradley, Nathaniel L., assignor to Bradley & Hubbard, Meriden, Conn. Cup for kerosene lamps.....	Jan. 31, 1871
	Bradley, Sylvester, and Zera Waters. (See Waters & Bradley.)	
	Bradley, Thomas R. V. (See Smith, Reuben A., assignor.)	
	Bradley, William H. (See Gregory, George, assignor.)	
111,310	Bradshaw, Arthur, Rochester, N. Y. Bee-hive.....	Jan. 31, 1871
115,690	Bradshaw, Hugh, Chicago, Ill. Machine for crozing staves.....	June 6, 1871
4,233	Bradshaw, John A., William H. Brown, and Darius Whithead, Lowell, Mass. Treadle for sewing-machines..... (Reissue)	Jan. 17, 1871
116,015	Bradshaw, William Joseph, Cleveland, Ohio. Earth-closet.....	June 20, 1871
120,367	Same..... Same.....	Oct. 31, 1871
113,487	Bradt, Henry E., Manistee, Mich. Edging-machine.....	April 11, 1871
	Bradway, John P., and William S. Deeds. (See Deeds & Bradway.)	
112,213	Brady, Elijah, New York, N. Y. Triturator.....	Feb. 23, 1871
114,523	Brady, Freeman, jr., Washington, Pa. Attachment for sash-weights.....	May 9, 1871
120,704	Brady, James, assignor to the Bradford Lock Works, Bradford, Conn. Door-lock.....	Nov. 7, 1871
118,334	Brady, John, and Charles L. Wall, Philadelphia, Pa. Ash-sifter.....	Aug. 22, 1871
119,733	Bragaw, John A., assignor to self and Nelson Ingram, Kingston, N. Y. Coal-scuttle.....	Oct. 10, 1871
116,673	Braggins, Edward, Mount Vernon, Ohio. Combined corn-planter and cultivator.....	July 4, 1871
110,951	Brainard, Amos H., Hyde Park, Mass. Back-center for milling-machines.....	Jan. 17, 1871
111,311	Same..... Head-stock for milling-machines.....	Jan. 31, 1871
4,436	Brainard, Edwin D., Albany, N. Y. Apparatus for refrigerating and desiccating..... (Division A, reissued)	June 27, 1871
4,437	Same..... Construction of ice-chambers, refrigerating chambers, &c. (Division B, reissued)	June 27, 1871
	Praislin, John, <i>et al.</i> (See Wood, James A., assignor.)	
117,375	Braley, Ephraim, assignor to self and Luther C. Hastings, Carmel, Me. Box for chalk-lines.....	July 25, 1871
118,333	Bramer, Frank, Little Falls, N. Y. Clutch for harvesters.....	Aug. 22, 1871
	Branch, Joseph W. (See Mulligan, James T., assignor.)	
119,113	Branch, William G., James A. Hazeltine, and Walter and Charles F. Branch, Pomeroy, Ohio. Dovetailing-machine.....	Sept. 19, 1871
	Brand, Junius A., and John D. Crocker. (See Crocker & Brand.)	
113,973	Brandeis, Leopold, Brooklyn, N. Y. Material for filtering.....	April 25, 1871
	Brandenburger, Andrew. (See Felber, Jacob, assignor.)	
117,376	Brandon, Alexander, New York, N. Y. Process for producing signs in paint.....	July 25, 1871
	Brandon, David F., and Rufus B. Fowler. (See Fowler & Brandon.)	
112,774	Brandon, George, New York, N. Y. Street-lamp.....	Mar. 21, 1871
	Brandt, Hermann P., and Heinrich F. Moeller. (See Moeller & Brandt.)	
	Brandt, Jacob, jr. (See Perkins, James, assignor.)	
	Braner & Co. (See Kreuzberger, Louis, assignor)..... (Design.)	
	Branford Lock Works. (See Brady, James, assignor.)	
112,116	Branning, Daniel L., Tampa, Fla. Odometer.....	Feb. 28, 1871
	Branson, James L., and G. W. Folts. (See Folts & Branson.)	
111,036	Brase, Adolph, and Lemuel Salladay, Sciotoville, Ohio. Steam-boiler.....	Jan. 17, 1871
	Brasher, William M., & Co. (See Robley, Joseph, assignor.) (Three cases.) (Design.)	
118,584	Brassfield, Austin G., Henry, Ill. Corn-marker.....	Aug. 29, 1871
	Brassington, Walter J., and Samuel P. Grocock. (See Grocock & Brassington.)	
121,230	Brastow, Louis C., and Alphons M. Zwiebel, assignors to L. B. Flanders, Wilkes-barre, Pa. Planing-machine attachment.....	Nov. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,844	Brauer, Frederick, and Robert Nenninger. (<i>See Nenninger & Brauer.</i>) Traner, Louis, Philadelphia, Pa. Apparatus for making extracts from animal and vegetable substances, &c.	April 18, 1871
117,509	Braunfeld, Henry E., Philadelphia, Pa. Folding-chair	Aug. 1, 1871
121,843	Same.....Pump	Dec. 12, 1871
113,622	Braunhold, Henry, New York, N. Y. Cask for paste	April 11, 1871
116,145	Same.....Fur-box	June 20, 1871
117,558	Same.....Mode of securing pockets to traveling-bag partitions	Aug. 8, 1871
118,335	Bray, Edward P., Elizabeth, N. J. Metallic heel	Aug. 22, 1871
	Same.....(<i>See Finck, Nicholas, assignor.</i>)	
119,691	Same.....Metallic heel for boots and shoes	Oct. 10, 1871
	Bray, John B., and Wriley W. Dodson. (<i>See Dodson & Bray.</i>)	
118,539	Bray, Mellen, Newton, Mass. Boot and shoe heel	Sept. 12, 1871
121,927	Same.....Boot and shoe	Dec. 19, 1871
113,392	Bray, Morris P., Birmingham, Conn. Corset	April 4, 1871
	Same.....(<i>See Hamilton, Thomas F., assignor.</i>)	
112,681	Bray, Morris P., assignor to self and Downs & Bassett, Birmingham, Conn. Hoop-skirt	Mar. 14, 1871
4,588	Brayer, Nicholas, assignor to Equitable Co-operative Foundry Company, Roch- ester, N. Y. Heating-stove.....(<i>Design.</i>)	Jan. 24, 1871
112,682	Braymer, George W., Penn Township, Mich. Sawing-machine	Mar. 14, 1871
116,146	Brecher, Phillip, Louisville, Ky. Fire-place	June 20, 1871
110,733	Breckenridge, Elias K., West Meriden, Conn. Fastener for meeting-rails of sashes	Jan. 3, 1871
114,910	Same.....Door-latch	May 16, 1871
120,705	Brecht, George H., Burton, Ill. Medical compound or restorative balsam	Nov. 7, 1871
121,331	Bredt, Ernst, New York, N. Y. Stud for shirts. (<i>Antedated Nov. 10, 1871.</i>)	Nov. 28, 1871
119,962	Breed, De Witt Clinton, Medina, N. Y. Table and drawer attachment for sew- ing-machines	Oct. 17, 1871
120,412	Breen, Patrick, Auburn, N. Y. Tilt-hammer	Oct. 31, 1871
4,557	Breinig, David E., assignor through mesne assignments to Anna S. Breinig, Charles Taylor, and John H. Welles, New York, N. Y. Treating linseed and other oils for paints, &c.....(<i>Reissue.</i>)	Sept. 19, 1871
120,706	Brennan, John B., and William Tucker, Paris, Ill. Middlings-separator	Nov. 7, 1871
	Brennan, John J., and Fred. W. Goodale. (<i>See Goodale & Brennan.</i>)	
112,536	Brenner, Godfrey, and George T. Polk, Poughkeepsie, N. Y. Car-coupling	Mar. 14, 1871
	Brenner, Philipp, <i>et al.</i> (<i>See Seyl, Fischer & Brenner.</i>)	
115,691	Brent, George Lee, Gordonsville, Va. Animal-hopple	June 6, 1871
115,692	Brett, Sydney, New York, N. Y. Bale-tie	June 6, 1871
115,514	Brett-ll, Edward W., Elizabeth, N. J. Permutation-wheel for locks	June 13, 1871
	Brevort, Henry L., and William Craig. (<i>See Craig & Brevort.</i>)	
112,317	Brewer, Felix, Waynesville, Mo. Bee-hive	Mar. 7, 1871
112,214	Brewer, John S., Chicago, Ill. Apparatus for lifting barrels, &c	Feb. 25, 1871
	Brewer, Joseph C., <i>et al.</i> (<i>See Salvo, Christopher, assignor.</i>)	
122,219	Brewer, Russell, assignor to self and Lyman P. Tompkins, Lincoln, Ill. Jour- nal-box for railway-cars	Dec. 26, 1871
116,016	Brewer, Samuel C., Water Valley, Miss. Brick-kiln	June 20, 1871
117,377	Brewer, William D., Charlestown, Mass. Machine for pressing and molding cigar-bunches	July 25, 1871
118,428	Same.....Retainer for holding pressed and molded cigar-bunches	Aug. 29, 1871
114,103	Brewster, Daniel D., West Laurens, N. Y. Buckwheat-refiner	April 25, 1871
	Brewton, Ann D. (<i>See Robbins, Louis S., assignor.</i>).....(<i>Reissue.</i>)	
112,537	Brick, William S., Fitchburgh, Mass. Oil-can holder	Mar. 14, 1871
	Bricker, Henry, and Amos S. Brinser. (<i>See Brinser & Bricker.</i>)	
120,027	Bridenthall, Harry H., jr., New Derry, Pa. Harvester	Oct. 17, 1871
113,488	Bridge, James, Augusta, Me. Machine for reducing wood for the manufacture of paper-pulp	April 11, 1871
115,274	Same.....Machine for converting wood or other fibrous material into pulp	May 30, 1871
112,013	Bridge, Lewis, assignor to David Stuart and Richard Peterson, Philadelphia, Pa. Detachable magazine for cooking-stoves and ranges	Feb. 21, 1871
	Bridge, Lewis, and David Stuart. (<i>See Stuart & Bridge.</i>).....(<i>Reissue.</i>)	
	Same.....same	
	Bridgeport Brass Company. (<i>See Smith, George L., assignor.</i>)	
	Bridgeport Manufacturing Company. (<i>See Humphrey, John, assignor.</i>)	
119,114	Bridges, Christopher M., Leon, Iowa. Liquid-measuring can	Sept. 19, 1871
119,302	Bridgman, Coleman, Saint Cloud, Minn. Thill-coupling	Sept. 26, 1871
116,017	Brigg, William W., Home, Tenn. Animal-trap. (<i>Antedated June 16, 1871.</i>)	June 20, 1871
122,102	Same.....Machine for making shot	Dec. 26, 1871
	Brigg, William W., <i>et al.</i> (<i>See Lawrence, William H., assignor.</i>)	
	Briggs, Aaron, <i>et al.</i> (<i>See Densmore, Myron H., assignor.</i>)	
	Briggs, Alanson T., <i>et al.</i> (<i>See Dodge, William James, assignor.</i>)	
115,564	Briggs, George C., Boston, Mass. Apparatus for drying salt	June 6, 1871
	Briggs, George W., and William Hillhouse. (<i>See Hillhouse & Briggs.</i>)	
118,540	Briggs, George W., and Myron H. Densmore, Shickshinny, Pa. Rotary steam- engine	Sept. 12, 1871
117,597	Briggs, Martin, Rochester, N. Y. Bearing for vertical shafts	Aug. 1, 1871
115,009	Briggs, Orlando P. and Lewis W., said O. P. Briggs assignor to said L. W. Briggs, Chicago, Ill. Machine for cutting screw-threads on bolts	May 16, 1871
	Briggs, Silas P., and S. J. Pearsall. (<i>See Pearsall & Briggs.</i>)	
110,952	Brigham, Joseph L., Saint Paul, Minn. Clothes-drier	Jan. 17, 1871
	Bright, Joseph C. (<i>See Krauser, Daniel H., assignor.</i>)	
	Brightman, Joseph W., and Newton W. Taylor. (<i>See Taylor & Brightman.</i>)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,501	Brignac, François M., Saint James Parish, La. Setting kettles for evaporating cane-juice, &c.....	Oct. 3, 1871
113,013	Brimmer, Daniel J., assignor to Martin E. Brimmer, North Petersburg, N. Y. Dumping-car.....	Mar. 28, 1871
	Bringman, John, and Thomas F. Shaw. (See Shaw & Bringman.)	
	Brinie, William A. (See Wells, Charles S., assignor.)	
122,220	Brinkerhoff, Jacob, Auburn, N. Y. Clothes-wringer.....	Dec. 26, 1871
115,929	Brinly, Thomas E. C., Louisville, Ky. Cotton-seed planter.....	June 13, 1871
116,147	Same.....Cultivator.....	June 20, 1871
118,585	Same.....Machine for cutting potato-vines and digging potatoes.....	Aug. 29, 1871
	Same.....(See Pearson, Preston C., assignor.)	
113,845	Brinly, Thomas E. C., assignor to Tyler, Brown & Co., Louisville, Ky. Broom.....	April 18, 1871
110,734	Brinser, Amos S., and Henry Bricker, Falmouth, Pa. Manure-fork.....	Jan. 3, 1871
122,150	Brintnall, Thomas M., Medina, Ohio, and W. Eugene Powers, Cortland, N. Y. Washing-machine.....	Dec. 26, 1871
117,974	Britnall, Thomas M., Medina, Ohio. Cheese-frame.....	Aug. 15, 1871
119,303	Same.....Cloth-measuring machine.....	Sept. 26, 1871
	Brinton, J. Bernard. (See Philips, William J., assignor.)	
119,815	Brintzinghoffer, Charles, Philadelphia, Pa. Blacking-brush.....	Oct. 10, 1871
120,486	Brintzinghoffer, Charles, and George Eckert, Philadelphia, Pa. Brush-handle.....	Oct. 31, 1871
112,775	Briscoe, Benjamin and Joseph A., assignors to the Michigan Bolt and Nut Company, Detroit, Mich. Machine for upsetting bolts.....	Mar. 21, 1871
	Briscoe, Robert P. (See Mitchell, Thomas W., assignor.)	
119,502	Brison, Jerry, Competine, Iowa. Plow-clevis.....	Oct. 3, 1871
	Bristol Brass and Clock Company. (See Taplin, Alvin, assignor.) (Two cases.)	
	Britt, Ekum B., et al. (See Arnold, Roberson, assignor.)	
120,028	Brittain, John T., Springfield, Ohio. Cultivator.....	Oct. 17, 1871
120,236	Brittan, Samuel B., Newark, N. J. Concrete and stone pavement.....	Oct. 24, 1871
116,408	Britten, Bashley, England. Ordnance.....	June 27, 1871
	Brittingham, William B., and Robert C. Gray. (See Gray & Brittingham.) (Two cases.)	
119,739	Britton, James, Williamsburgh, N. Y. Sheet-metal knob for teapots.....	Oct. 10, 1871
111,103	Britton, Rodney G., Springfield, Vt. Children's carriage.....	Jan. 24, 1871
5,404	Same.....Toy building-block.....(Design)	Dec. 5, 1871
113,733	Britton, Walter, assignor to self and Elmwood Mining and Manufacturing Company, Truro, Ill. Plow.....	April 18, 1871
113,846	Brix, Dominicus, Geneseo, Ill. Cooking-stove.....	April 18, 1871
5,127	Brix, Hans Christian, Denmark. Group of statues.....(Design)	July 18, 1871
112,014	Brizee, John, Alvarado, Cal. Mop-holder.....	Feb. 21, 1871
115,815	Same.....Mop-head.....	June 13, 1871
113,623	Broad, Gustavus Benson, Waterville, Me. Shawl-strap.....	April 11, 1871
114,402	Broadbent, Sidney, Scranton, Pa. Shaft-coupling.....	May 2, 1871
112,216	Broadbent, Sidney, and Willard B. Culver, Scranton, Pa. Stop-valve.....	Feb. 28, 1871
117,253	Broadbooks, Peter, Batavia, N. Y. Carriage-spring.....	July 25, 1871
112,897	Broadmeadow, John P., Bridgeport, Conn. Apparatus for tempering sand.....	Mar. 21, 1871
113,249	Same.....Apparatus for casting.....	April 4, 1871
112,215	Broadwell, Charles B., assignor to self and Ignatius Caulfield, New Orleans, La. Street-car.....	Feb. 28, 1871
121,079	Brock, Alvan D., Washington, D. C. Steam-generator.....	Nov. 21, 1871
117,041	Brock, Orville M., Monroeton, Pa. Combined cider mill and press.....	July 18, 1871
110,892	Brock, Orville M., assignor to James H. and George Hawes, Monroeton, Pa. Animal-power apparatus.....	Jan. 10, 1871
116,679	Brock, William E., New York, N. Y. Window-blind.....	July 4, 1871
121,485	Brock, William H., Bridgeport, Conn. Safety-pin.....	Dec. 5, 1871
	Brockemier, Charles W., et al. (See Hobbs, Brockemier & Leighton.)	
4,366	Brocksieper, Frederick W., assignor to Sargent & Co., New Haven, Conn. Butt-hinge.....(Design)	Nov. 21, 1871
113,734	Brockway, Damon W., Dover, Me. Shawl-strap.....	April 18, 1871
113,974	Brockway, Damon W., assignor to self and Jonathan F. Parkhurst, Dover, Me. Trunk-fastener.....	April 25, 1871
113,735	Brockway, Josephus, assignor to self and Uriel K. Mayo, Albany, N. Y. Apparatus for compressing, straining, and molding plastic pyroxiline.....	April 18, 1871
113,736	Same.....Manufacture of dental plates from pyroxiline.....	April 18, 1871
121,150	Brode, John Fr., Memphis, Tenn. Car-brake.....	Nov. 21, 1871
118,841	Broderick, John and Michael, Louisville, Ky. Dumping-wagon.....	Sept. 12, 1871
	Brodhead, John C., and Edgar Eltinge. (See Eltinge & Brodhead.)	
111,173	Brodie, Anthony T., and Robert R. Smith, Pittsburgh, Pa. Collapsing-cores.....	Jan. 24, 1871
121,151	Brodie, Anthony T., Robert R. Smith, and John T. Tyler, Pittsburgh, Pa. Method and apparatus for casting pipe.....	Nov. 21, 1871
116,929	Brodie, George, Plum Bayou, Ark. Tie for metallic bands or hoops used in baling cotton.....	July 11, 1871
119,009	Same.....Baling-press.....	Sept. 19, 1871
120,487	Brody, Samuel, New York, N. Y. Muff-tassel.....	Oct. 31, 1871
121,580	Broezel, Henry, Mauston, Wis. Fountain.....	Dec. 5, 1871
	Bromley, John, & Sons. (See Koch, Christian J., assignor.)	
	Same.....(See Crabtree, Benjamin, jr., assignor.) (Design)	
111,513	Bromley, John C., Rock Island, Ill. Oscillating-balance steam-valve.....	Feb. 7, 1871
4,624	Bromley, John H., assignor to John Bromley & Sons, Philadelphia, Pa. Carpet-pattern.....(Design)	Feb. 7, 1871
5,256	Same.....Carpet.....(Design)	Sept. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,558	Bronner, Julius, and Hermann G. Gutzkow, Prussia. Preparing coloring-matter from anthracene. (Reissue)	Sept. 19, 1871
111,037	Bronson, George Walter, Ottawa, Ill. Cultivator	Jan. 17, 1871
121,041	Brouson, John F., Waterbury, Conn. Printers' galley	Nov. 21, 1871
117,378	Brook, James W., Lynchburgh, Va. Transplanting device	July 25, 1871
117,379	Same. Insect-guard	July 25, 1871
116,926	Brooke, Aries P., New York, N. Y. Glass-press	July 11, 1871
	Brooke, William E. (See Ivens, William H., assignor.)	
	Brooke, William E., and William H. Ivens. (See Ivens & Brooke.)	
132,221	Brooke, William M., Eaton, Ohio. School-desk	Dec. 26, 1871
113,393	Brookfield, William, New York, N. Y. Mode of making telegraph-insulators	April 4, 1871
	Brooks, Alfred H. (See Ross, Abbott Q., assignor.)	
	Brooks, Azzel D., and Oscar Barrett. (See Barrett & Brooks.)	
119,503	Brooks, Benjamin G., Manchester, N. H. Apparatus for discharging extraneous coloring-matter, &c., from printed fabrics	Oct. 3, 1871
119,504	Brooks, Benjamin G., assignor to Waterman Smith, Manchester, N. H. Mode of attaching drums to shafts	Oct. 3, 1871
114,911	Brooks, David, Philadelphia, Pa. Galvanic battery	May 16, 1871
121,986	Brooks, Franklin W., assignor to National Manufacturing Company, New York, N. Y. Revenue-stamp canceler	Dec. 19, 1871
121,987	Brooks, Franklin W., and George A. Everett, assignor to the American Seal-Lock Company, New York, N. Y. Seal-lock	Dec. 19, 1871
111,038	Brooks, Franklin W., New York, N. Y. Stamp-canceler	Jan. 17, 1871
115,693	Same. same	June 6, 1871
	Same. (See Hamilton, Fred. C., assignor.) (Two cases.)	
	Same. (See Marston, Henry C., assignor.)	
	Brooks, H. P., and O. L. Hopson. (See Hopson & Brooks.)	
119,963	Brooks, Heman P., Waterbury, Conn. Paring and slicing knife	Oct. 17, 1871
	Brooks, John, and David H. Ball. (See Ball & Brooks.)	
112,776	Brooks, John E., Yarmouth, Me. Green glaze for flower-pots	Mar. 21, 1871
	Brooks, Joseph V., and William Reynolds. (See Reynolds & Brooks.)	
5,068	Brooks, Joshua, Boston, Mass. Advertising-print (Design)	July 4, 1871
116,927	Brooks, Lorin A., Laporte, Ind. Heating-stove	July 11, 1871
113,489	Brooks, McKendree A., Laporte, Ind. Turbine water-wheel	April 11, 1871
113,737	Brooks, Peter, assignor to Carrington Manufacturing Company, Waterbury, Conn. Machine for punching corset-springs	April 18, 1871
112,413	Brooks, Rhodom M., Pike County, Ga. Cotton-press	Mar. 7, 1871
115,930	Brooks, Samuel R., Saint Louis, Mo. Notator for music	June 13, 1871
120,237	Brooks, Samuel W., Brownsville, Tex. Machine for making paving-blocks	Oct. 24, 1871
	Brooks, Silas N., administrator. (See Yale, Linus, jr.)	
112,100	Brooks, Thomas, assignor to self, Thomas Jackson, and Frank A. Foster, Minerva, Ohio. Process of converting iron into steel	Aug. 15, 1871
115,816	Brooks, William, assignor to self and Isaac C. Fisher, South Canton, Mass. Varnish for coating the surface of bobbins or spools	June 13, 1871
121,581	Brooks, William D., assignor to Mary C. Brooks, Baltimore, Md. Apparatus for testing cans, barrels, &c	Dec. 5, 1871
112,336	Brooks, William F., assignor to William Brooks Jones, New York, N. Y. Homogeneous metal for casting girders, beams, &c	Aug. 22, 1871
	Broome, Charles. (See Douden, Edwin, assignor.)	
114,912	Broomfield, James F., Richmond, Ky. Bee-hive	May 16, 1871
	Brotch, Conrad. (See Moulton, Charles H., assignor.)	
	Brothers, Brand, and Robert Themar. (See Themar & Brand.)	
119,692	Brough, William H., Coatsville, Pa. Saddle-box for relieving pressure from rolls in rolling-mills	Oct. 10, 1871
119,693	Same. Saddle-box for relieving pressure from rolls in rolling-mills	Oct. 10, 1871
117,975	Broughton, John, Brooklyn, N. Y. Water-meter	Aug. 15, 1871
4,593	Broughton, John, assignor through mesne assignments to Henry Moore, New York, N. Y. Lubricator (Reissue)	Oct. 17, 1871
120,029	Brower, Henry L., New York, N. Y. Fire-alarm	Oct. 17, 1871
118,191	Brower, Henry L., assignor to Charles D. Fredericks, New York, N. Y. Combined fire and burglar alarm	Aug. 23, 1871
120,848	Brower, Joseph, and James and Harvey Campbell, West Alexandria, Ohio. Washing-machine	Nov. 14, 1871
114,403	Brown, Addison P., assignor to W. and B. Douglass, New York, N. Y. Pump	May 2, 1871
116,409	Brown, Adna, Springfield, Vt. Coasting-wagon	June 27, 1871
111,312	Brown, Alexander D., sr., Columbus, Ga. Wheel for vehicles	Jan. 31, 1871
119,304	Brown, Alfred, New York, N. Y. Shutter-worker	Sept. 26, 1871
110,593	Brown, Alziras, Worcester, Mass. Hay-tedder	Jan. 10, 1871
	Brown, Andrew, and Alexander H. Carson. (See Carson & Brown.)	
113,490	Brown, Arthur G., Wareham, Mass. Journal-box	April 11, 1871
120,030	Brown, Benjamin D., and Daniel Moyer, Philadelphia, Pa. Ironing-board	Oct. 17, 1871
112,777	Brown, Benjamin F., Catlin, Ind. Horse hay-fork	Mar. 21, 1871
117,510	Same. Powder-box	Aug. 1, 1871
120,031	Brown, Charles H., Atlantic, Iowa. Chimney	Oct. 17, 1871
	Brown, C. L., and William H. Morris. (See Morris & Brown) (Reissue.)	
113,190	Brown, Charles M., Chicago, Ill. Shutter-worker	Aug. 22, 1871
111,723	Brown, Charles M., and Cecil L. Gates, Hartford, Conn. Curtain-fixture	Feb. 14, 1871
118,192	Brown, Coolidge B., Placerville, Cal. Vapor-burner	Aug. 22, 1871
121,448	Brown, Cortland E., Pamela, N. Y. Fence	Dec. 5, 1871
112,217	Brown, Cyril P., Hudson, Mich. Shower-bath apparatus	Feb. 28, 1871
111,209	Brown, Daniel H., Utica, Mo. Spring-supporter for carriages	Feb. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,544	Brown, Daniel T., assignor to James H. M. Williams, Plainfield, N. J. Padlock.	July 4, 1871
112,538	Brown, Daniel W., Woodbridge, N. J. Apparatus for carrying drain-pipes.	Mar. 14, 1871
117,598	Brown, Daniel W., and Charles A. Campbell, Woodbridge, N. J. Automatic signaling-apparatus for railways. (Antedated July 20, 1871)	Aug. 1, 1871
	Brown, Daniel W., and David A. Flood. (See Flood & Brown.)	
	Brown, Dora E., et al. (See Prescott, Shubael C., assignor.)	
111,313	Brown, Edmund P., Thomasville, Ga. Washing-machine	Jan. 31, 1871
115,153	Brown, Ezra R., and James Long, Mauch Chunk, Pa. Punching machine	May 23, 1871
115,157	Same. Cutter for cutting washers from leather.	May 23, 1871
121,988	Brown, Floyd G., Brenham, Tex. Bale-tie	Dec. 19, 1871
113,138	Brown, Frederick W., assignor to the Albany Free Stone Company, Albany, N. Y. Composition burial-case	Mar. 28, 1871
118,785	Brown, George A., assignor to self and Ebenezer L. Kelley, Reading, Mich. Belt-fastening	Sept. 12, 1871
119,564	Brown, George A., assignor to self, Samuel C. Dodge, and Henry F. Doty, Reading, Mich. Buggy-spring and attachment	Oct. 3, 1871
115,022	Brown, George C., assignor to Eugene E. Cornell, Brooklyn, N. Y. Pulley-block.	May 23, 1871
120,935	Brown, George E., South River, N. J., and William Bell, Perth Amboy, N. J. Railway-car truck	Nov. 14, 1871
5,257	Brown, George W., Louisville, Ky. Match-safe and paper-weight combined. (Design)	Sept. 12, 1871
119,305	Brown, George W., New York, N. Y. Apparatus for elevating bods	Sept. 26, 1871
	Same. (See Atwood, Leonard, assignor.)	
119,565	Brown, George W., and A. T. Gifford, Providence, R. I. Screw-cutting device	Oct. 3, 1871
110,894	Brown, Gustavus A., and Francis A. McCallen, Russellville, Ky. Bee-hives	Jan. 10, 1871
115,427	Brown, Gustavus D., Lebanon, Ill. Corn-cultivator	May 30, 1871
115,275	Brown, Harvey V., Warren, Ill. Vise	May 30, 1871
	Brown, Horace, and Julius Gerber. (See Gerber & Brown.)	
	Brown, H. A. (See Rogers, Ezekiel, assignor.)	
121,989	Brown, Isaac, Philadelphia, Pa. Medical compound for the cure of chills and fevers	Dec. 19, 1871
116,545	Brown, Israel F., New London, Conn. Lathe and tool-supporter	July 4, 1871
116,546	Brown, James, Bay Ridge, N. Y. Fiber-cleaning machine	July 4, 1871
118,101	Brown, James, Fonda, N. Y. Millstone-bushes	Aug. 15, 1871
113,491	Brown, James, assignor to Ira D. Thompson, San Francisco, Cal. Filter	April 11, 1871
116,547	Brown, James R., Cambridgeport, Mass. Bolt-cutter	July 4, 1871
120,149	Same. same	Oct. 24, 1871
112,218	Brown, James Raymond and William, Boston, Mass. Carpenters' plane	Feb. 28, 1871
114,524	Brown, James Salisbury, Pawtucket, R. I. Flier for spinning	May 9, 1871
114,404	Brown, Jefferson, jr., New York, N. Y. Safety-attachment for pocket-books	May 2, 1871
115,276	Brown, John, Manchester, Ohio. Washing-machine	May 30, 1871
	Brown, John Albert. (See Hovey, Francis, assignor.)	
116,548	Brown, John S., Schenectady, N. Y. Capstan	July 4, 1871
	Brown, John S., et al. (See Traftord, Thomas, assignor.)	
113,975	Brown, John T. H., assignor to self and J. P. Ewart, Greenup, Ill. Elevator hay-fork	April 25, 1871
113,738	Brown, Leverett, New York, N. Y. Mode of attaching topmasts and top-gallant masts	April 18, 1871
116,148	Brown, Marshall R., Mingo, Ohio. Wheel for vehicles	June 20, 1871
121,324	Brown, Milton D., Newburgh, Tenn. Animal-trap	Nov. 28, 1871
113,394	Brown, Morgan W., New York, N. Y. Package for hydrocarbons and other liquids	April 4, 1871
113,395	Same. Package for oysters, clams, &c.	April 4, 1871
113,396	Same. Covering for sausages and other meat	April 4, 1871
121,152	Same. Composition stopper for vessels. (Antedated Nov. 9, 1871)	Nov. 21, 1871
	Brown, Nelson H., and Eugene M. Van Hoesen. (See Van Hoesen & Brown.)	
120,413	Brown, Othello, Albia, Iowa. Harness-buckle	Oct. 31, 1871
	Brown, O. (See Deyo, Ira, assignor.)	
	Brown, O. W., et al. (See Colby, Calvin M., assignor.)	
118,511	Brown, Patrick W., and Joseph Delarue, Richmond, Va. Machine for canceling and severing revenue stamps, &c.	Aug. 29, 1871
120,936	Brown, Robinson, and Edwin A. Blaisdell, Goffstown, N. H. Coffee-pot	Nov. 14, 1871
112,414	Brown, Samuel, assignor to self and Cephas R. Carver, Philadelphia, Pa. Paper-cutting machine	Mar. 7, 1871
	Brown, Samuel M. (See Pardieck I. Henry, assignor.)	
115,931	Brown, Samuel P., assignor to self and William E. Shaw, Washington, D. C. Preserving wood	June 13, 1871
119,306	Brown, Thomas B., and Joshua N. Dinsmore, Kendall's Mills, Me. Machine for making wedges	Sept. 26, 1871
113,624	Brown, Thomas H., and Charles E. Gilman; said Gilman assignor to said Brown, Chicago, Ill. Compressing and inserting rubber blocks into carriage-clips	April 11, 1871
118,784	Brown, Thomas S., Greenfield, Mich. Snow-plow	Sept. 12, 1871
4,310	Brown, Thomas W., assignor through mesne assignments to Harbster Bros. & Co., Boston, Mass. Grindstone journal boxes (Reissue)	Mar. 28, 1871
119,566	Brown, William, England. Ram for naval warfare	Oct. 3, 1871
117,735	Brown, William, assignor to William M. Evans, New York, N. Y. Carpet-stretcher and tack-hammer combined	Aug. 8, 1871
	Brown, William A. (See Morse, Charles H., assignor.)	
	Brown, W. E., et al. (See Heath, Elander, assignor.)	
111,104	Brown, William Hammond, Bangor, Me. Baggage-truck	Jan. 24, 1871
121,701	Same. Sash-supporter	Dec. 12, 1871
121,928	Same. Baggage-truck	Dec. 19, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Brown, William H., <i>et al.</i> (See Bradshaw, Brown, & Whithead.)	
	Brown, William H., and Isaac Hodgson. (See Hodgson & Brown.) (Two cases.)	
114,913	Brown, William P., and James Timms. (See Timms & Brown.)	
120,570	Brown, William S., Thorntown, Ind. Whiffletree.....	May 16, 1871
	Brown, William Z., assignor to self and Phineas B. Provost, Decatur, Ill. Clothes holder.....	Nov. 7, 1871
	Browne, John David, Cincinnati, Ohio. Hinge..... (Extension)...	Feb. 23, 1871
	Browne, Thomas G., <i>et al.</i> (See Cole, Jonah R., assignor.)	
	Brownell, Emerson P., and John F. C. Rider. (See Rider & Brownell.)	
	Brownell, John R., and Sewall Tucker. (See Tucker & Brownell.)	
	Browning, Josiah, and Damon R. Averill. (See Averill & Browning.)	
	Browning, Warfield T. (See Heywood, Reuben W., assignor.)	
117,976	Brownlee, George, Princeton, Ind. Spring bed-bottom.....	Aug. 15, 1871
120,849	Broyhill, William C., and William D. Sperry, Tremont, Ill. Churn-dasher.....	Nov. 14, 1871
	Bruce, David Wolfe. (See Herriet, Julius, assignor.) (Four cases.) (Design.)	
110,627	Bruce, Duncan, assignor to Emma Bruce, Brooklyn, N. Y. Rendering and treating offal and other animal substances.....	Jan. 3, 1871
118,683	Bruce, Jerome D., Newberry, S. C. Speculum attachment.....	Sept. 5, 1871
120,414	Bruce, John P., Brooklyn, N. Y. Propulsion of vessels. (Antedated Oct. 17, 1871.....)	Oct. 31, 1871
118,902	Bruce, Lucien F., and Newlan J. Wolcott, Springfield, Mass. Pantograph.....	Sept. 12, 1871
121,844	Bruce, Robert M., Camp Point, Ill. Washing-machine.....	Dec. 12, 1871
	Bruce, Warren S., and John C. Campbell. (See Campbell & Bruce.)	
118,842	Bruen, William, and Alonzo B. Woodward. (See Woodward & Bruen.)	
	Brumby, Charles, assignor to self and John Needham, jr., Rochester, N. Y. Varnish for leather.....	Sept. 12, 1871
	Brumfiel, Alonzo, and Henry C. McIlwain. (See McIlwain & Brumfiel.)	
113,014	Brumlen, Ludwig, Hoboken, N. J. Manufacture of white lead.....	Mar. 28, 1871
110,953	Brundred, William J., Oil City, Pa. Device for discharging oil from tanks.....	Jan. 17, 1871
115,817	Same..... Discharge-apparatus for oil-tanks, grain-cars, &c.....	June 13, 1871
4,492	Same..... (See Glass, George W., assignor.)	
	Brundred, William J., assignor of one-half interest to George W. Glass, Oil City, Pa. Oil-tank and reservoir..... (Reissue).....	Aug. 1, 1871
115,428	Brunner, John M., Roanoke, Ohio. Musical transposing-board.....	May 30, 1871
	Brunner, Charles W. (See Robinson, Charles E., assignor.)	
111,810	Brunner, Henry J., Nazareth, Pa. Mill-stone pick.....	Feb. 14, 1871
116,549	Brunner, John D., Doylestown, Pa. Grain-separator.....	July 4, 1871
121,273	Bruns, Frederick, Cleveland, Ohio. Flat-iron holder.....	Nov. 28, 1871
119,262	Brunswick, Emanuel, Chicago, Ill. Game-table.....	Sept. 26, 1871
122,222	Brunton, John Dickinson, England. Machine for turning stones.....	Dec. 26, 1871
118,193	Brush, George E., Danbury, Conn. Lamp-burner.....	Aug. 22, 1871
118,429	Bruso, Frederick, Buffalo, N. Y. Spike-machine.....	Aug. 29, 1871
	Bruster, George E., and Charles Utter. (See Utter & Bruster.)	
116,768	Bruton, William M., Baltimore, Md. Apparatus for operating faus.....	July 4, 1871
	Bryan, Ezra T., and Peter D. Horton. (See Horton & Bryan.)	
113,976	Bryan, Hugh Swinton Legaré, Cedar Rapids, Iowa. Electric telegraphic sounder, relay, &c.....	April 25, 1871
116,928	Same..... Liberty, Mo. Telegraph-apparatus.....	July 11, 1871
111,105	Bryan, James A., and William Stainfield, Kent, Ohio. Automatic lubricating-cup.....	Jan. 24, 1871
117,736	Bryan, Richard, Penn Yan, N. Y. Grain-thrasher and straw-carrier.....	Aug. 8, 1871
112,778	Bryant, Abner H., Chicago, Ill. Device for transporting eggs. (Antedated March 9, 1871).....	Mar. 21, 1871
120,488	Bryant, George B., Pottsville, Pa. Car-truck and axle.....	Oct. 31, 1871
120,489	Same..... Railway-car wheel.....	Oct. 31, 1871
113,847	Bryant, Isaac C., Washington, D. C. Machine for making bricks and tiles.....	April 18, 1871
119,307	Bryant, James M., Joseph P., and Samuel H., Temperanceville, Pa. Paper-bag machine.....	Sept. 26, 1871
	Bryant, John C., and Oliver J. Rider. (See Rider & Bryant.)	
119,567	Bryant, Orrin, Chesterfield, Mass. Water-wheel.....	Oct. 3, 1871
117,147	Bryant, Washington, Batesville, Ark. Wagon-brake.....	July 18, 1871
116,262	Bryhn, Ole A., and William T. Farre; said Farre assignor to said Bryhn, Montreal, Canada. Hand corn-sheller.....	June 27, 1871
118,430	Bryson, James V., Grenupsburgh, Ky. Gleaner-rake for reaping-machines.....	Aug. 29, 1871
5,321	Buchanan, George, Washington, Pa. Grate-fender..... (Design).....	Oct. 24, 1871
120,571	Same..... same.....	Nov. 7, 1871
	Buchanan, George, and Jephtha G. Boyland. (See Boyland & Buchanan.)	
113,250	Buchanan, Joseph R., Louisville, Ky. Manufacture of salt.....	April 4, 1871
	Buchanan, Melford D., <i>et al.</i> (See Dotterer, Davis H., assignor.)	
116,149	Buchanan, Robert, Winslow, Ill. Water-wheel. (Antedated June 15, 1871).....	June 20, 1871
	Buchanan, William C., and Theophilus Harrison. (See Harrison & Buchanan.)	
121,325	Buche, John, Apple River, Ill. Buckle.....	Nov. 28, 1871
114,259	Buchner, Heinrich, New York, N. Y. Breech-loading fire-arm.....	May 20, 1871
121,080	Buchter, Henry, Louisville, Ky. Chair-seat frame.....	Nov. 21, 1871
	Buck, Charles H., <i>et al.</i> (See Clement, Franklin, assignor.)	
	Same..... (See Ellis, Paschal P., assignor.)	
112,897	Buck, Chauncey S., assignor to self and James Lovett, Saint Louis, Mo. Rail-way-car truck.....	Mar. 21, 1871
117,599	Same..... Adjustable seat for railway-cars.....	Aug. 1, 1871
112,117	Buck, Henry A., Fredonia, N. Y. Feed-cutter.....	Feb. 28, 1871
118,337	Buck, James, Baltimore, Md. Bung-funnel.....	Aug. 22, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,102	Back, Martin, Lebanon, N. H. Machine for crimping blind-slats Buckingham, James. (See Koch, Philippe, assignor.)	Aug. 15, 1871
112,118	Buckingham, John, Weathersfield, Conn. Grain-drier	Feb. 28, 1871
119,074	Buckingham, Joseph P., Chicopee, Mass. Portable wardrobe	Sept. 19, 1871
117,738	Buckland, Ralph P., jr., and Gustavus A. Gessner, Fremont, Ohio. Pharma- ceutical still, steam, and water bath	Aug. 8, 1871
116,929	Buckley, Chauncey, Meriden, Conn. Curtain-fixture	July 11, 1871
112,119	Buckley, George O., New Bedford, Mass. Self-centering chuck for lathes.....	Feb. 23, 1871
117,254	Buckley, J. D., Quincy, Ill. Farmers' boiler	July 25, 1871
120,707	Buckley, Thomas, New York, N. Y. Chandeliers.....	Nov. 7, 1871
4,733	Buckman, Alexander, and John W. Huffington, Brooklyn, N. Y. Toy steam- engine	(Design) Mar. 23, 1871
121,702	Buckman, Alexander, assignor to self and John W. Huffington, Brooklyn, N. Y. Toy steam-engine. (Antedated Nov. 22, 1871).....	Dec. 12, 1871
	Buckman, E. D., and Samuel A. Sisson, executors. (See Allen, Samuel S.) (Extension.)	
	Buckman, E. D., and Samuel A. Sisson, executors. (See Allen, Samuel S.) (Reissue.)	
120,032	Buckman, Ira, jr., Williamsburgh, N. Y. Hinge	Oct. 17, 1871
121,232	Same.....Clamp for fruit-jars. (Antedated Nov. 10, 1871).....	Nov. 23, 1871
4,293	Buckman, John H., assignor to self and Peter W. Reinshagen, Cincinnati, Ohio. Device for securing pulleys to shafts	(Reissue) Mar. 7, 1871
116,263	Buckminster, Ansel, assignor to Daniel M. Robertson, Boston, Mass. Feeding- device for wood-screw machines	June 27, 1871
120,238	Budd, Bern L., assignor to James S. Mott, Fairfield, Conn. Check-rein fastener.....	Oct. 24, 1871
120,239	Same.....same.....	Oct. 24, 1871
	Budd, Joseph W., administrator. (See Dodenhoff, Israel).....(Extension.)	
113,251	Budd, William E., Chatham, N. J. Churn	April 4, 1871
	Buddecke, C. T., et al. (See Windhausen, Franz, assignor.) Same.....same.....(Reissue.)	
122,151	Buell, Edgar, Clinton, Conn. Windlass.....	Dec. 26, 1871
	Buell, John, et al. (See Hicks, Levi S., assignor.)	
4,838	Buell, Madison, and William W. Leslie, New Castle, Del. Side of a railway-car. (Design).....	April 25, 1871
113,977	Buerkle, Augustus, Pittsburgh, Pa. Machine for manufacturing picks and similar tools.....	April 25, 1871
117,255	Buffum, Albert K. P., Gardiner, Me. Machine for making gutters for buildings.....	July 25, 1871
	Buford, Basil D. (See Underwood, Flavius J., assignor).....(Reissue.)	
120,230	Buhle, Nicholas A., New York, N. Y. Cigar-clamp	Oct. 24, 1871
116,550	Buhoup, Henry C., Pittsburgh, Pa. Portable tallying-register.....	July 4, 1871
110,735	Baker, William H., Johnstown, N. Y. Sewing-machine.....	Jan. 3, 1871
117,380	Same.....Sewing-machine. (Antedated July 20, 1871).....	July 25, 1871
122,152	Bulkley, Melissa E., Providence, R. I. Supporting-busk for corset-fastenings.....	Dec. 26, 1871
119,568	Bulkley, William N., Brooklyn, N. Y. Curtain-fixture	Oct. 3, 1871
115,565	Bull, Henry C., assignor of one-half interest to Joseph M. Lowenstein, New Or- leans, La. Apparatus for cleaning privies	June 6, 1871
122,103	Bull, Henry C., assignor to Joseph M. Lowenstein, New Orleans, La. Earth-closet.....	Dec. 26, 1871
116,801	Bull, Jacob H., Hereford, Md. Car-coupling.....	July 11, 1871
111,314	Bullard, Ezekiel W., Barre, Mass. Hay-tedder	Jan. 31, 1871
120,708	Same.....Oscillating churn	Nov. 7, 1871
113,015	Bullard, O. Flagg, assignor of two-thirds interest to F. C. Hooton and J. R. Hayes, Media, Pa. Index.....	Mar. 28, 1871
	Bullock, George W. (See Belnap, Lester D., assignor.)	
	Bullock, Isaac, and George Baker. (See Baker & Bullock.)	
115,158	Bullock, Lewis Henry, Champaign City, Ill. Wagon-seat.....	May 23, 1871
120,182	Bullock, M. C., Rutland, Vt. Cutter for rock-channeling machines	Oct. 24, 1871
113,739	Bullock, Milan C., assignor to self and Samuel E. Griscom, Pottsville, Pa. Self- centering box or bearing	April 18, 1871
	Bullock, Milan C., and Jacob Shelley. (See Shelley & Bullock.)	
113,016	Bunce, William, Oberlin, Ohio. Regulating-clasp for elastic tubes	Mar. 28, 1871
118,786	Bundy, Nelson H., assignor to Charles Gregg, New York, N. Y. Steam-trap.....	Sept. 12, 1871
114,641	Bunn, Simeon, Belleville, Ill. Puddling-furnace.....	May 9, 1871
118,684	Bunnell, Aaron W., Linesville, Pa. Lock-nut	Sept. 5, 1871
118,685	Same.....same.....	Sept. 5, 1871
	Bunnell, Dennis D., and Perry W. Davis. (See Davis & Bunnell.)	
119,569	Bunnell, Isaac S., Carbondale, Pa. Bread-cutter.....	Oct. 3, 1871
115,694	Bunnell, William R., Jersey City, N. J. Composition for steam-packing	June 6, 1871
121,486	Buntin, George, Boston, Mass. Car-seat frame	Dec. 5, 1871
	Bunz, Henry. (See Haug, Carl W., assignor.)	
110,895	Burbank, Abner, Rochester, N. Y. Fluting-machine	Jan. 10, 1871
	Burbank, Samuel D. (See Risley, Martin, assignor.)	
115,429	Burcey, Charles J. T., Black Rock, Conn. Apparatus for distilling turpentine, &c.....	May 30, 1871
118,787	Same.....Manufacture of acetate of lime.....	Sept. 12, 1871
118,788	Same.....Manufacture of acetic acid.....	Sept. 12, 1871
115,695	Burch, Benjamin S., assignor to self and William H. Baxter, Petersburg, Va. Combination tool	June 6, 1871
115,818	Burch, William C., and George D. Oatley, Gloucester, N. J. Friction-clutch	June 13, 1871
111,039	Burcham, Franklin J., Racine, Wis. Boot and shoes	Jan. 17, 1871
121,326	Burchard, Edwards M., Washington, D. C. Tea and coffee pot	Nov. 28, 1871
112,683	Burd, Samuel F., Mercer, Pa., and Joseph F. Denniston, Pittsburgh, Pa., as- signors to Artificial Limb Manufacturing Company. Clasp for artificial limbs	Mar. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,303	Burden, Henry, deceased, by James A. and I. Townsend Burden, executors, Troy, N. Y. Machine for making horseshoes (Extension) ..	June 14, 1871
117,859	Burdett, Oliver H., assignor to self and Robert Webb, New Athens, Ohio. Steam-wagon	Sept. 26, 1871
113,848	Burdett, Riley, and Benjamin O. Church, Chicago, Ill. Organ. (Antedated Aug. 5, 1871)	Aug. 8, 1871
113,849	Burdick, Hiram M., Ilion, N. Y. Hay-tedder	April 18, 1871
113,849	Same	April 18, 1871
119,309	Burdick, Orrin C., assignor to Plumb & Burdick, New Haven, Conn. Carriage-bolt	Sept. 26, 1871
121,153	Burdu, Luther E., Lexington, Ky. Plow	Nov. 21, 1871
121,327	Burger, Alois, New York, N. Y. Street-lantern	Nov. 28, 1871
121,929	Burger, Christian, Reading, Pa. Pipe-coupling	Dec. 19, 1871
116,018	Burger, Lewis, assignor of three-fourths interest to W. S. Gobble, Chicago, Ill. Office-indicator	June 20, 1871
119,115	Burgess, Louis. (See Castle, Frederic, assignor.)	
119,218	Burgess, Andrew, New York, N. Y. Magazine fire-arm	Sept. 19, 1871
122,153	Same	Sept. 26, 1871
111,724	Burgess, Benjamin F., jr., Boston, Mass. Hair-switch	Dec. 26, 1871
119,010	Burgess, Classon P., and James R. Stevenson, Rochester, N. Y. Composition for pavements	Feb. 14, 1871
110,823	Burgess, Classon P., assignor to self, Emmet Stafford, and James R. Stevenson, Rochester, N. Y. Wood-pavement	Sept. 19, 1871
122,154	Burgess, George G., Grafton, Ohio. Adjustable lock-coupling for vehicles	Jan. 10, 1871
121,031	Burgess, Perry A., Butler, Mo. Blind-stop	Dec. 26, 1871
115,430	Burkin, Walter S., Washington, Vi. Lifting-jack	Nov. 21, 1871
116,802	Burkins, Denslow, Burlington, Iowa. Match-box	May 30, 1871
116,410	Burkins, Gilbert, Roundout, N. Y. Ice-run	July 11, 1871
117,042	Burke, Andrew J., Baltimore, Md. Soldering-apparatus	June 27, 1871
114,914	Burke, Joseph, Saginaw, Mich. Wooden-truss bridge	July 18, 1871
121,749	Burke, Patrick, assignor to Willard M. Harding, Boston, Mass. Propulsion of vessels	May 16, 1871
116,019	Burke, Thomas James, Virginia, Ill. Propulsion of canal-boats	Dec. 12, 1871
119,310	Burkhardt, Gottlieb P., Boston, Mass. Steam engine and boiler	June 20, 1871
119,816	Same	Sept. 26, 1871
115,696	Same	Oct. 10, 1871
113,851	Same	June 6, 1871
119,116	Burkholder, Daniel R., Plainfield, Pa. Ladder-stand	
121,082	Burleigh, Charles, assignor to the Burleigh Rock-Drill Company, Fitchburgh, Mass. Machine for drilling rocks	April 18, 1871
119,311	Burleigh, Nary G., assignor to self, Charles A. Jackson, and William H. Eaton, Boston, Mass. Construction of brackets, shelves, &c	Sept. 19, 1871
121,328	Burleigh Rock-Drill Company. (See Pattison, Charles S., assignor.)	
115,697	Same	(See Phillips, George, assignor.)
121,082	Burlew, Cornelius, Washington, D. C. Asphalt pavement	Nov. 21, 1871
119,311	Burling, Benjamin, White Hall, N. Y. Clothes pin	Sept. 26, 1871
121,328	Burnam, William, Pana, Ill. Sewing-machine attachment for button-holes	Nov. 28, 1871
115,697	Barnett, Durrant, assignor through mesne assignments to self, H. W. Shepard, and Robert Seaman, Bedford Station, N. Y. Locking-cover for milk-cans	June 6, 1871
121,154	Barnett, D., assignor to H. W. Shepard and Robert Seaman, Bedford Station, N. Y. Milk-can	Nov. 21, 1871
121,487	Barnett, Marshall, Boston, Mass. Faucet	Dec. 5, 1871
111,903	Barnett, Thomas S., Syracuse, N. Y. Spring carriage-cushion	Feb. 21, 1871
113,851	Burnham, Gerritt G. W., assignor to self and James N. Burnham, Baltimore County, Md. Carriage-wheel	April 18, 1871
120,368	Burnham, George L., Providence, R. I. Composition to render fabrics impervious to gas	Oct. 31, 1871
120,799	Burnham, John, York, Mich. Bee-hive	Nov. 7, 1871
120,850	Burnham, Manly A., assignor to self and Tobias New, New York, N. Y. Laying tile	Nov. 14, 1871
114,525	Burnham, Nathan F., York, Pa. Water-wheel	May 9, 1871
119,075	Burnham, Theodore, Bridgeport, Conn. Tobacco-pipe	Sept. 19, 1871
116,150	Burus, Charles M., jr., Philadelphia, Pa. Tash-holder	June 20, 1871
115,431	Burns, Jabez, New York, N. Y. Grain-drier	May 30, 1871
122,155	Burr, De Vere. (See Fayman, George H., assignor.)	
117,043	Burr, George W., East Line, N. Y. Plow-cleaner	Dec. 26, 1871
4,278	Burr, John T., Brooklyn, N. Y. Hydro-static press	July 18, 1871
115,277	Burr, Remus D., Kingsborough, N. Y. Glove	Feb. 28, 1871
115,277	Same	May 30, 1871
119,312	Burr, Samuel M. (See Stearnes, David E., assignor.)	
112,318	Burr, Sanford S., Boston, Mass. Cabinet beistend	Sept. 26, 1871
112,120	Burr, Theodore, assignor to Allen and Henry Muir, Battle Creek, Mich. Thill-coupling	Mar. 7, 1871
112,120	Burrell, David H., Little Falls, N. Y. Apparatus for heating liquid	Feb. 28, 1871
110,736	Burrell, David H., and George W. McCammon. (See McCammon & Burrell.)	
114,405	Burress, Peter, Braidwood, Ill. Combined cultivator and planter	Jan. 3, 1871
120,851	Burridge, Thomas H., Saint Louis, Mo. Manufacture of white lead	May 2, 1871
115,278	Burritt, Harvey H., and George H. Bailey. (See Bailey & Burritt.)	
115,278	Burritt, Orrin W., Weedsport, N. Y. Tin-roofing machine	Nov. 14, 1871
115,698	Burroughs, George A., Providence, R. I. Manufacture of enameled metal	May 30, 1871
115,698	Burroughs & Co. (See Lorr, Hezekiah E., assignor.)	
115,698	Burroughs, Benjamin F., West Perry Township, Pa. Medical compound or cough-sirup	June 6, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Barroughs, John C., <i>et al.</i> (See Henderson, Edmond Q., assignor.)	
	Burrows, Frank M., and George C. Smith. (See Smith & Burrows.) (Two cases.)	
	Burrows, Grant H., <i>et al.</i> (See Evans, Carlisle & Burrows.) (Design.)	
116,551	Burrows, John E., Newark, N. J. Process and apparatus for the manufacture of spelter	July 4, 1871
4,970	Burrows, William H., assignor to Jordan L. Mott, New York, N. Y. Range. (Design.)	June 6, 1871
4,971	Same.....Cooking-stove.....(Design)	June 6, 1871
118,194	Burson, James, assignor of one-half interest to Henry Whitall, Yates City, Ill. Oil-can	Aug. 22, 1871
	Burson, James, and Henry Whitall. (See Whitall & Burson.)	
114,757	Burson, Nathan C., and John W. Robertson, Onarga, Ill. Ticket-box	May 16, 1871
	Burt, George E., Harvard, Mass., and Abram and George F. Wright, Clinton, Mass. Horse-power.....(Extension)	Sept. 7, 1871
	Burt, Oliver T. (See Hitchcox & Gibbs, assignors.)	
	Burt, Thomas, and Silas Putnam. (See Putnam & Burt.)	
115,699	Burtis, John H., Brooklyn, N. Y. Hot-air furnace	June 6, 1871
116,680	Same.....Base-burning fire-place heater	July 4, 1871
116,681	Same.....Cooking-range	July 4, 1871
	Same. (See Greene, William A., assignor.)	
110,628	Burtlett, William B., New York, N. Y. Paint-brush	Jan. 3, 1871
4,686	Burton, James Henry, assignor to James T. Ames, England. Manufacture of gun-barrels.....(Reissue)	Dec. 26, 1871
5,214	Burton, Lester W., Rochester, N. Y. Advertising-desk.....(Design)	Aug. 22, 1871
120,150	Burwell, Joseph Y., Worthington, Pa. Hub for carriage-wheels	Oct. 24, 1871
111,040	Buschmann, Leopold F., New York, N. Y. Fluid-meter	Jan. 17, 1871
119,570	Busenger, Anthony, Mount Solon, Va. Cooper's croze and howel	Oct. 3, 1871
117,511	Bush, Arthur W., and Marshall McComb, Poughkeepsie, N. Y. Music-leaf turner	Aug. 1, 1871
119,117	Bush, Frank, Boonton, N. J. Coupling-hook for coal-cars	Sept. 19, 1871
121,488	Bush, Richard G., Jamestown, N. Y. Tuck-folding attachment for sewing-machines	Dec. 5, 1871
4,616	Bushnell, Edwin L., Poughkeepsie, N. Y. Spring-mattress.....(Reissue)	Oct. 31, 1871
	Bushnell, Edwin L., and Robert R. Cornell. (See Cornell, Richard T., assignor.)	
117,860	Bushnell, Edwin L., Poughkeepsie, N. Y. Device for forming spiral bed-springs	Aug. 8, 1871
112,219	Bushnell, Henry, New Haven, Conn. Water-wheel	Feb. 28, 1871
110,954	Bushnell, William, Elizabeth, N. J. Wood-pavement	Jan. 17, 1871
111,904	Same.....same	Feb. 21, 1871
	Bushnell, William K., and Daniel Wagner. (See Wagner & Bushnell.)	
	Buskett, James L., and Bartholdt J. Dreeseon. (See Dreeseon & Buskett.)	
121,845	Bussell, Erastus T., Indianapolis, Ind. Ceiling-ornament	Dec. 12, 1871
121,846	Same.....Ditching-machine	Dec. 12, 1871
111,811	Bussey, Esek, Troy, N. Y. Cooking-stove	Feb. 14, 1871
111,812	Same.....same	Feb. 14, 1871
113,492	Same.....Heating-stove	April 11, 1871
	Bussey, Esek, and Charles A. McLeod. (See Geissenbaner, Charles P., assignor).....(Reissue.)	
114,260	Bussey, Esek, and Charles A. Hamlin, assignors to Bussey, McLeod & Co., Troy, N. Y. Base-burning stove	May 2, 1871
120,618	Butch, Leonard C., Lancaster, Ohio, and Augustin F. Thoma, Piqua, Ohio. Watchmakers' tool	Nov. 7, 1871
	Butcher, Robert H., <i>et al.</i> (See Minter, James, assignor.).....(Reissue.)	
117,977	Butgenback, Charles, Louisville, Ky. Combined life-boat and bed-bottom	Aug. 15, 1871
	Butler, Cyrus, and Donald D. McKay. (See McKay & Butler.) (Two cases.)	
	Butler, Cyrus, and Chase A. Stevens. (See Stevens & Butler.)	
116,803	Butler, Francis G., Bellows Falls, Vt. Evaporating-apparatus for manufacture of sugar	July 11, 1871
119,694	Same.....Apparatus for evaporating and clarifying saccharine liquids	Oct. 3, 1871
112,319	Butler, Francis G., assignor to self and James B. Williams, Bellows Falls, Vt. Evaporating-pan for saccharine liquids	Mar. 7, 1871
112,539	Same.....Apparatus for evaporating saccharine liquids	Mar. 14, 1871
4,528	Same.....Evaporating-pan for saccharine liquids.....(Reissue)	Aug. 29, 1871
120,033	Butler, Henry L., Pittsburgh, Pa. Valve for steam-engines	Oct. 17, 1871
118,512	Butler, Jacob K., Yarmouth, Canada. Fastening for window-sashes	Aug. 29, 1871
110,955	Butler, James H., Hampden, Me. Belt-gearing	Jan. 17, 1871
111,174	Butler, John, New York, N. Y. Gas-generator	Jan. 24, 1871
115,978	Same.....Apparatus for vaporizing volatile hydrocarbons	April 25, 1871
4,420	Butler, John, Buffalo, N. Y. Harvester.....(Reissue)	June 13, 1871
	Butler, John, New York, N. Y. Gas-generator.....(Extension)	Sept. 15, 1871
121,582	Butler, John, Huff Township, Ind. Plow	Dec. 5, 1871
112,121	Butler, John G., Fort Monroe, Va. Projectile for ordnance	Feb. 28, 1871
114,406	Butler, John G., Glen's Falls, N. Y. Electro-magnetic burglar-alarm	May 2, 1871
119,313	Butler, John G., Fort Monroe, Va. Projectile	Sept. 26, 1871
	Butler, Pierce, and William Muir. (See Muir & Butler.)	
	Butler, William D., and John Shorey. (See Shorey & Butler.)	
114,526	Bittenberg, Henry, and John L. Strong, Memphis, Tenn. Stalk-puller	May 9, 1871
	Butterfield, George F., and Daniel Lovejoy. (See Lovejoy & Butterfield.) (Extension.)	
	Same. (See Lovejoy & Butterfield.) (Disclaimer.)	
121,274	Butterfield, Henry R., Vassalborough, Me. Machine for making shovel-handles	Nov. 28, 1871
4,470	Butterfield, John C., and James Hay, Chicago, Ill. Trip-hammer.....(Reissue)	July 18, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,432	Butterfield, William, assignor to self and Charles E. Woodman, Boston, Mass. Rivet	May 30, 1871
118,789	Butterfield, William, assignor to William H. Worden, Madison, Wis. Water-indicator	Sept. 12, 1871
	Butterfield, William, <i>et al.</i> (See Keniston, Charles, assignor) (Two cases.)	
111,041	Butterworth, William H., Trenton, N. J. Hay-tedder	Jan. 17, 1871
111,431	Butterworth, William H. and John, jr.; said John Butterworth, jr., assignor to William H. Butterworth, Trenton, N. J. Grain thrasher and cleaner	Jan. 31, 1871
120,415	Buttkreit, Carl Gustave, Toledo, Iowa. Bell-piano	Oct. 31, 1871
4,438	Buttles, Cephas A., Milwaukee, Wis. Stove-pipe thimble (Reissue)	June 27, 1871
119,571	Same. same	Oct. 3, 1871
120,710	Same. same	Nov. 7, 1871
121,329	Same. same	Nov. 28, 1871
113,017	Büttner, Friederich, deceased, by Anna Büttner, administratrix, New York, N. Y. Liquid-meter	Mar. 28, 1871
5,099	Button, Conyers, Philadelphia, Pa. Stocking-fabric (Design)	July 11, 1871
5,100	Same. same (Design)	July 11, 1871
5,101	Same. same (Design)	July 11, 1871
116,151	Button, Lysander and Theodore E., Waterford, N. Y. Steam fire-engine	June 20, 1871
119,314	Same. Steam pump	Sept. 26, 1871
	Buttrick, Edwin L. (See Manning, John H., assignor.)	
112,540	Buxton, John E., Owatonna, Minn. Combined drill and seeder	Mar. 14, 1871
112,541	Same. Seeding-machine	Mar. 14, 1871
114,915	Buzby, Albert G., Philadelphia, Pa. Window-sash	May 16, 1871
120,852	Buzzell, Freeman P., assignor of one-half interest to Oscar D. Rowe, Milton Junction, Wis. Shoe and gaiter	Nov. 14, 1871
118,338	Buzzell, John P., assignor to Bigelow Carpet Company, Clinton, Mass. Weaving Brussels and other pile carpets	Aug. 22, 1871
116,552	Bye, Samuel J., assignor to self and William C. Bye, Bluff Point, Ind. Corn-planter	July 4, 1871
120,937	Byers, William, Philadelphia, Pa. Steam-generator	Nov. 14, 1871
111,905	Byington, Albert, Rochelle, Ill. Wire-stretcher	Feb. 21, 1871
117,737	Byram, Frank A., Germantown, Pa. Ironing-table	Aug. 8, 1871
118,103	Byrd, Isaiah and Turner, jr., Calvin Township, Mich. Safety whiffletree	Aug. 15, 1871
119,572	Byrne, Patrick, Nashville, Tenn. Elevator	Oct. 3, 1871
121,330	Byrne, Walter J., Russellville, Ky. Paint	Nov. 28, 1871
5,367	Byrom, Samuel, Philadelphia, Pa. Shawl-fabric (Design)	Nov. 21, 1871
115,023	Cabell, Samuel G., Washington, D. C. Spittoon	May 23, 1871
116,152	Same. Quincy, Ill. Nautical alarm	June 20, 1871
117,861	Cabell, Samuel G., assignor to self and George P. Este, Quincy, Ill. Fog-alarm	Aug. 8, 1871
4,653	Cabell, Samuel G., assignor through mesne assignments to Flora B. Cabell and Susan R. Knox, Quincy, Ill. Fluting-machine (Reissue)	Nov. 28, 1871
	Cable, Charles, and Elias Zeigler. (See Zeigler & Cable.)	
	Caddick, Samuel, <i>et al.</i> (See While, Lewis, Strickland & Caddick.)	
4,839	Cade, George, Long Branch, N. J. Envelope-blank (Design)	April 25, 1871
4,385	Same. Lath-wick feeder (Reissue)	May 16, 1871
112,898	Cadwell, Jonathan W., Springfield, Mass. Roofing-bracket	Mar. 21, 1871
118,790	Cadwell, Marvin, Lansing, Mich. Elastic washing mitt	Sept. 12, 1871
118,513	Cady, Edmund G., Warwick, R. I. Coal and ash sifter	Aug. 29, 1871
111,725	Cady, Elisha W., Tomah, Wis. Stump-extractor	Feb. 14, 1871
119,564	Caffall, Robert May, and Daniel Miller, assignors to William Gozer Monk, England. Composition for water-proofing walls. (Antedated Sept. 27, 1871)	Oct. 17, 1871
	Cagwin, George H. (See Urie, Thomas S., assignor.)	
	Cahn & Salmon. (See Salmon, Adolphe, assignor.)	
120,619	Cahn, Levi F., New York, N. Y. Chain-lock	Nov. 7, 1871
122,223	Cahoone, Calvin G., and Augustus W. Robinson, Providence, R. I. Pocket-book guard	Dec. 26, 1871
119,817	Cail, Alfred, France. Steam-condenser. (Antedated Oct. 7, 1871)	Oct. 10, 1871
111,315	Cairns, William, Jersey City, N. J. Cracker-machine	Jan. 31, 1871
112,779	Calahan, Edward A., and George B. Field, New York, N. Y. Pneumatic tele-graph	Mar. 21, 1871
111,106	Calder, John, Macedon, N. Y. Pruning-shears	Jan. 24, 1871
	Calderwood, Samuel, <i>et al.</i> (See Morrison, Duncan.)	
	Caldwell, David B., and John H. McGowan. (See McGowan & Caldwell.)	
118,903	Caldwell, Joseph K., Philadelphia, Pa. Apparatus for vaporizing hydrocarbons	Sept. 12, 1871
112,350	Caldwell, William H., Wheeling, W. Va. Door-securer	Mar. 7, 1871
	Calely, Edward L., and John R. Rose. (See Rose & Calely). (Two cases.) (Design.)	
121,331	Calhoun, Robert, assignor to self and James C. Lindsay, Allegheny City, Pa. Shovel	Nov. 28, 1871
114,104	Califf, August, Danville, Ill. Lime-oven	April 25, 1871
121,275	Calkin, Hervey C., New York, N. Y. Life-raft	Nov. 28, 1871
119,965	Calkins, Almon H., Lanesville, Ind. Washing-machine	Oct. 17, 1871
116,604	Calkins, James B., Pacific, Mo. Stock and freight car	July 11, 1871
122,104	Calkins, James B., assignor to self and Josiah Geiger, Pacific, Mo. Stock and freight car	Dec. 26, 1871
118,586	Callahan, Henry, Dayton, Ohio. Fruit-can	Aug. 29, 1871
120,034	Calland, Jean Armand, France. Galvanic battery	Oct. 17, 1871
115,433	Callow, William, jr., Baltimore, Md. Car-coupling	May 30, 1871
	Calverly, J., and John C. MacDonald. (See MacDonald & Calverly.)	
118,791	Calvert, Frank, Wabash City, Ind. Device for elevating hay, &c. (Antedated Aug. 24, 1871)	Sept. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,015	Cameron, Adam S., New York, N. Y. Valve-gear for direct-acting engines	Feb. 21, 1871
112,415	Same.....Governor for direct-acting engines.....	Mar. 7, 1871
112,416	Same.....same.....	Mar. 7, 1871
112,684	Same.....Steam-valve.....	Mar. 14, 1871
112,685	Same.....Piston-packing.....	Mar. 14, 1871
112,899	Same.....Valve-gear for steam-engines.....	Mar. 21, 1871
113,397	Same.....Pump-valve.....	April 4, 1871
119,505	Same.....Regulator for exhausters in gas-works.....	Oct. 3, 1871
114,642	Cameron, Adam S., New York, N. Y., and William E. Everett, Rye, N. Y. Man- ufacture of illuminating-gas.....	May 9, 1871
113,625	Cameron, John C., Madison Station, Miss. Combined plow and scraper	April 11, 1871
119,818	Cammerer, Eberhard. (<i>See</i> Schnell, John C., assignor.)	
118,772	Camp, Ambrose E., and Charles L. Reid, Louisville, Ky. Lard-cooler.....	Oct. 10, 1871
111,316	Camp, Harry, Covington, Ga. Metallic fishing-line.....	Sept. 5, 1871
119,315	Camp, Herman, Rouseville, Pa. Pump	Jan. 31, 1871
	Camp, Herman, and George W. McIntosh, Rouseville, Pa. Throttle-governor for engines.....	Sept. 26, 1871
117,739	Camp, Norman W., and Charles W. Camp, Saratoga Springs, N. Y., and Nor- man H. Camp, Wilkesbarre, Pa. Dumping-car	Aug. 8, 1871
118,904	Camp, Orrii S., Grand Rapids, Mich. Wood-encased can.....	Sept. 12, 1871
4,650	Same.....same.....(<i>Reissue</i>).....	Nov. 28, 1871
114,105	Campbell, Andrew, Brooklyn, N. Y. Printing-press.....	April 25, 1871
114,106	Same.....same.....	April 25, 1871
112,122	Campbell, Benjamin F., Boston, Mass. Hot-air furnace.....	Feb. 28, 1871
	Campbell, Charles A., and Daniel W. Brown. (<i>See</i> Brown & Campbell.)	
	Campbell, Donald W. (<i>See</i> Reyman, Jacob B., assignor.)	
115,566	Campbell, Duncan H., Scotland, and Erastus Woodward, Charlestown, Mass. Boot and shoe.....	June 6, 1871
115,567	Same.....Boot and shoe peg attachment.....	June 6, 1871
119,966	Campbell, Edward R., assignor to self and James H. Campbell, New York, N. Y. Preparing pigments for water-color painting.....	Oct. 17, 1871
115,819	Campbell, Eugene, Medusa, N. Y. Car-coupling.....	June 13, 1871
111,813	Campbell, Henry, San Francisco, Cal. Lamp-bracket for sewing-machines.....	Feb. 14, 1871
121,583	Same.....Lamp-bracket or support. (<i>Antedated</i> Nov. 20, 1871).....	Dec. 5, 1871
	Campbell, James and Harvey, <i>et al.</i> (<i>See</i> Brower & Campbell.)	
112,900	Campbell, James A., assignor to self, Abraham K. Layman, and Lewis W. Myers, Dayton, Va. Still	Mar. 21, 1871
115,820	Campbell, James W., New York, N. Y. Machine for cutting irregular forms ..	June 13, 1871
117,256	Same.....Philadelphia, Pa. Preserving cranberries	July 25, 1871
117,978	Same.....New York, N. Y. Carving-machine.....	Aug. 15, 1871
116,020	Campbell, John, Chatham Village, N. Y. Preparing and bleaching paper-pulp ..	June 20, 1871
110,629	Campbell, John C., and Warren S. Bruce, Good Hope, Ill. Hog-snouter	Jan. 3, 1871
114,107	Campbell, John W., sr., New York, N. Y. Burglar-proof safe	April 25, 1871
114,916	Same.....Cooler for liquids.....	May 16, 1871
4,774	Campbell, Mary B., assignor to Campbell, Jones & Co., Pittsburgh, Pa. Orna- mentation of glassware.....(<i>Design</i>).....	April 11, 1871
114,917	Campbell, Nathan, Rochester, N. Y. Curtain-fixtute. (<i>Antedated</i> May 12, 1871)	May 16, 1871
114,918	Same.....same. (<i>Antedated</i> May 12, 1871).....	May 16, 1871
119,740	Same.....same. (<i>Antedated</i> July 26, 1871).....	Oct. 10, 1871
114,758	Campbell, Peter, Carrolltown, Pa. Railway-car coupling	May 16, 1871
4,547	Campbell, Robert R., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet-pattern.....(<i>Design</i>).....	Jan. 3, 1871
4,548	Same.....same.....(<i>Design</i>).....	Jan. 3, 1871
4,549	Same.....same.....(<i>Design</i>).....	Jan. 3, 1871
4,550	Same.....same.....(<i>Design</i>).....	Jan. 3, 1871
4,775	Same.....same.....(<i>Design</i>).....	April 11, 1871
4,776	Same.....same.....(<i>Design</i>).....	April 11, 1871
4,777	Same.....same.....(<i>Design</i>).....	April 11, 1871
4,778	Same.....same.....(<i>Design</i>).....	April 11, 1871
4,868	Same.....same.....(<i>Design</i>).....	May 9, 1871
4,869	Same.....same.....(<i>Design</i>).....	May 9, 1871
4,870	Same.....same.....(<i>Design</i>).....	May 9, 1871
4,871	Same.....same.....(<i>Design</i>).....	May 9, 1871
4,872	Same.....same.....(<i>Design</i>).....	May 9, 1871
4,873	Same.....same.....(<i>Design</i>).....	May 9, 1871
5,008	Same.....Carpet.....(<i>Design</i>).....	June 20, 1871
5,009	Same.....same.....(<i>Design</i>).....	June 20, 1871
5,010	Same.....same.....(<i>Design</i>).....	June 20, 1871
5,011	Same.....same.....(<i>Design</i>).....	June 20, 1871
5,012	Same.....same.....(<i>Design</i>).....	June 20, 1871
5,013	Same.....same.....(<i>Design</i>).....	June 20, 1871
5,014	Same.....same.....(<i>Design</i>).....	June 20, 1871
5,015	Same.....same.....(<i>Design</i>).....	June 20, 1871
5,016	Same.....same.....(<i>Design</i>).....	June 20, 1871
5,164	Same.....Carpet-pattern.....(<i>Design</i>).....	Aug. 8, 1871
5,165	Same.....same.....(<i>Design</i>).....	Aug. 8, 1871
5,166	Same.....same.....(<i>Design</i>).....	Aug. 8, 1871
5,167	Same.....same.....(<i>Design</i>).....	Aug. 8, 1871
5,168	Same.....same.....(<i>Design</i>).....	Aug. 8, 1871
5,169	Same.....same.....(<i>Design</i>).....	Aug. 8, 1871
5,170	Same.....same.....(<i>Design</i>).....	Aug. 8, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
5,171	Campbell, Robert R., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet-pattern..... (Design)...	Aug. 8, 1871
5,172	Same..... same..... (Design)...	Aug. 8, 1871
5,173	Same..... same..... (Design)...	Aug. 8, 1871
5,174	Same..... same..... (Design)...	Aug. 8, 1871
5,381	Same..... same..... (Design)...	Nov. 28, 1871
5,382	Same..... same..... (Design)...	Nov. 28, 1871
5,383	Same..... same..... (Design)...	Nov. 28, 1871
5,384	Same..... same..... (Design)...	Nov. 28, 1871
5,385	Same..... same..... (Design)...	Nov. 28, 1871
5,386	Same..... same..... (Design)...	Nov. 28, 1871
5,387	Same..... same..... (Design)...	Nov. 28, 1871
5,388	Same..... same..... (Design)...	Nov. 28, 1871
5,389	Same..... same..... (Design)...	Nov. 28, 1871
5,434	Same..... same..... (Design)...	Dec. 19, 1871
5,435	Same..... same..... (Design)...	Dec. 19, 1871
5,436	Same..... same..... (Design)...	Dec. 19, 1871
5,437	Same..... same..... (Design)...	Dec. 19, 1871
5,438	Same..... same..... (Design)...	Dec. 19, 1871
5,439	Same..... same..... (Design)...	Dec. 19, 1871
5,440	Same..... same..... (Design)...	Dec. 19, 1871
5,441	Same..... same..... (Design)...	Dec. 19, 1871
113,852	Campbell, Whittier & Co. (See Perkins, Francis B., assignor.)	April 18, 1871
119,118	Campbell, William, New York, N. Y. Curtain-fixture.....	Sept. 19, 1871
4,234	Same..... Belleville, Mich. Wagon-seat standard.....	
121,584	Campbell, William J., Saint Louis, Mo. Ticket-holder..... (Reissue)...	Jan. 17, 1871
120,853	Campeaux, Camille, New York, N. Y. Water-meter.....	Dec. 5, 1871
121,585	Canan, Charles Edwin, Coldwater, Mich. Flour-bolt vibrater.....	Nov. 14, 1871
113,252	Candee, L., & Co. (See Elliott, Lewis, jr., assignor)..... (Two cases.)	
111,042	Canfield, William M., Philadelphia, Pa. Steam and hydraulic packing.....	Dec. 5, 1871
113,253	Canine, Henry R., Waveland, Ind. Thrashing-machine.....	April 4, 1871
115,024	Cann, Otho, Coldwater, Mich. Horse-collar and hames.....	Jan. 17, 1871
118,104	Cannell, Robert A., assignor to self and S. P. Parmlly, New Orleans, La. Earth-closet.....	April 4, 1871
113,139	Capell, Britton, and William J. Rose. (See Helm, Shelby W., assignor.)	May 23, 1871
114,759	Capewell, George A., George D., and Joseph T., Woodbury, Conn. Charge for powder-flasks.....	May 15, 1871
4,972	Capewell, George D., George A., and Joseph T., assignors to George D. and George A. Capewell, Woodbury, Conn. Shot charger.....	Mar. 28, 1871
112,542	Capewell, George J., Cheshire, Conn. Combined tool.....	May 16, 1871
117,044	Capewell, George J., and William S. Platt. (See Platt & Capewell.)	
115,159	Capewell, Joseph T., Woodbury, Conn. Shot-pouch, &c..... (Design)...	June 6, 1871
116,264	Capewell, Joseph T. and George D., Woodbury, Conn. Powder-flask.....	Mar. 14, 1871
113,853	Caple, Chauncey S., assignor to self and William Gates, Frankfort, N. Y. Ladies' work-stand.....	July 18, 1871
118,431	Capp, Theophilus F., Bloomington, Ill. Cultivator.....	May 23, 1871
117,979	Cappon, John, Rochester, N. Y. Tuxere.....	June 27, 1871
5,396	Capron, Elisha P. H., New York, N. Y. Water-wheel and chute.....	April 18, 1871
112,543	Capron, Elisha P. H., assignor to Oscar B. Gray and Andrew Foster, Hudson, N. Y. Clothes-wringer.....	Ang. 29, 1871
118,339	Capron, Jacob, New York, N. Y. Electro-magnetic enunciator.....	Aug. 15, 1871
121,930	Capron, Willard O., New York, N. Y. Ladies' dress comb..... (Design)...	Dec. 5, 1871
110,737	Carbon Stove Company. (See Churchman, John, assignor.)	
116,265	Card, Edward, Providence, R. I. Tea-kettle.....	Mar. 14, 1871
112,417	Card, Elisha, and James M. Hine. (See Hine & Card.)	
110,956	Card, Miles H., Freeport, Ill., and Levi Safford, Chicago, Ill. Grain-door for railway-cars.....	Ang. 22, 1871
117,381	Cardell, Charles E. (See Turner, William H., assignor.)	
111,726	Cardullo, Dominick, Titusville, Pa. Liquid soap.....	Dec. 19, 1871
122,224	Carkhuff, Ralph, and James W. Musser. (See Musser & Carkhuff.)	
111,906	Carleton, Cyrus, assignor to Willcox & Gibbs Sewing-Machine Company, Brooklyn, N. Y. Hemmer for sewing-machines.....	Jan. 3, 1871
4,840	Carleton, Cyrus, and Charles H. Willcox. (See Willcox & Carleton.)	
	Carleton, Enoch, Cape Elizabeth, Me. Blower.....	June 27, 1871
	Carleton, Freeman. (See Merriman, Alfred, assignor.)	
	Carleton, John W., assignor to the Union Manufacturing Company, New Britain, Conn. Butt-hinge.....	Mar. 7, 1871
	Carlisle, John, et al. (See Evans, Carlisle, & Burrows)..... (Design)...	
	Carll, Peter R. (See Earll, John E., assignor)..... (Two cases.)	
	Carlsson, Pehr J., Andover, Mass. Rile-cutting machine.....	Jan. 17, 1871
	Carlton, William D., Morrisville, N. C. Farm-gate.....	July 25, 1871
	Carman, George A., Deer Park, N. Y. Seed-sower.....	Feb. 14, 1871
	Carman, Leander, McCoy's Station, Ohio. Steam-engine.....	Dec. 26, 1861
	Carman, William H., and Richard P. McCollum, Philadelphia, Pa. Washing-machine.....	Feb. 21, 1871
	Carmichael, Samuel D. (See Culver, Jacob D., assignor.)	
	Carmichael, Thomas, Newark, N. J. Mosquito-netting..... (Design)...	April 25, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,919	Carnell, Franklin, assignor to self and David R. Carnell, Philadelphia, Pa. Wheel for tempering clay.....	May 16, 1871
121,449	Carnell, George, Philadelphia, Pa. Brick-mold.....	Dec. 5, 1871
119,219	Carner, William W., <i>et al.</i> (See Hubbard, William C., assignor.)	
	Carns, William A., assignor to self and Henry Elmer Townsend, Malden, Mass. Exhaust mechanism for locomotive engines.....	Sept. 26, 1871
121,703	Caron, William A., Springfield, Mass. Door-plate.....	Dec. 12, 1871
119,120	Carothers, Jacob H., Pine Grove Mills, Pa. Horse hay-fork.....	Sept. 19, 1871
120,854	Carpenter, Charles B., North Attleborough, Mass. Link-joint for watch-chains.....	Nov. 14, 1871
112,123	Carpenter, Charles C., Huntsville, Ala. Door-key.....	Feb. 28, 1871
116,411	Same.....New York, N. Y. Hoop-skirt.....	June 27, 1871
	Same.....(See Sperry, Timothy S., assignor.)	
	Same.....(See Carter, Albert, assignor.)	
	Carpenter, E. S., <i>et al.</i> (See Colby, Calvin M., assignor.)	
120,620	Carpenter, Henry, Williamsburgh, N. Y. Fruit-basket.....	Nov. 7, 1871
113,740	Carpenter, James M., Pawtucket, R. I. Machine for cutting screws.....	April 18, 1871
119,916	Same.....same.....	Oct. 10, 1871
114,407	Carpenter, Jeremiah T., Downingtown, Pa. Corpse-preserved.....	May 2, 1871
121,704	Carpenter, Junius, Wilmington, Ohio. Halter.....	Dec. 12, 1871
112,016	Carpenter, Mary P., San Francisco, Cal. Sewing-machine feeding mechanism.....	Feb. 21, 1871
116,153	Carpenter, Milo, assignor to self and J. H. D. Snell, Wayland, Mich. Hinged hay-rack.....	June 20, 1871
	Carpenter Sewing-Machine Needle Company. (See Frary, George M., assignor.)	
	Carpenter, T. B. (See Nichols, William B., assignor.)	
	Carpenter, Thomas E., and Henry P. Richmond. (See Richmond & Carpenter.)	
	Carpenter, Thomas L. (See Mason, Benjamin A., assignor.)	
4,646	Carpenter, Willard M., Rowley, Mass. Infants' shoes.....(Design).....	Feb. 14, 1871
114,261	Same.....same.....	May 2, 1871
121,332	Carpenter, William, assignor to self and Samuel Poole, Lawrence, Kans. Embroidering-attachment for sewing-machines.....	Nov. 28, 1871
118,105	Carr, Thomas, England. Flour.....	Aug. 15, 1871
	Carr, William N. (See McPherson, William H., assignor.)	
	Carraher, Patrick. (See Bearup, Albert G., assignor.)	
	Carraher, Patrick, <i>et al.</i> (See Hopkins, Joseph W., assignor.)	
	Carraher, Patrick J., and Albert G. Bearup. (See Bearup & Carraher.)	
	Carrington Manufacturing Company. (See Brooks, Peter, assignor.)	
113,626	Carroll, Francis F., Midway, S. C. Cotton-seed planter.....	April 11, 1871
119,445	Carroll, John, assignor to self and Charles Wilkinson, Oakland, Cal. Die for cutting screws.....	Oct. 3, 1871
113,493	Carroll, John E., and John Lord, Philadelphia, Pa. Washing-machine.....	April 4, 1871
115,568	Carroll, John S., Covington, Ga. Cotton-hoe.....	June 6, 1871
114,760	Carroll, William J., Natchez, Miss. Cotton-bale tie. (Antedated May 12, 1871.)	May 16, 1871
115,700	Same.....Excavator.....	June 6, 1871
115,160	Carroll, William T., Medway, Mass. Spinning-ring.....	May 23, 1871
113,494	Carroll, William T., assignor to George Draper & Sons, Medway, Mass. Journal-box.....	April 11, 1871
	Carrollton, William. (See Hopkins, James H., assignor.)	
5,133	Carsley, Robert B., Chelsea, Mass. Hand-stamp.....(Design).....	July 25, 1871
113,979	Carson, Alexander H., and Andrew Brown, Troy, N. Y. Baby-tender.....	April 25, 1871
112,544	Carson, Thomas, Brooklyn, N. Y. Marbleizing paper.....	Mar. 14, 1871
117,512	Same.....Marbleized oil-cloth.....	Aug. 1, 1871
113,854	Carter, Albert, assignor to Charles C. Carpenter, New York, N. Y. Hoop-skirt.....	April 18, 1871
	Carter, Calvin H. (See Thacker, Samuel, assignor.)	
114,108	Carter, Charles L., Washington, D. C. Key-tag.....	April 25, 1871
113,254	Carter, Cyrus E., Martinsville, Ohio. Washing-machine.....	April 4, 1871
115,161	Same.....Clothes-wringer.....	May 23, 1871
119,819	Carter, Egbert P., Arcade, N. Y. Running-gear for buggies.....	Oct. 10, 1871
	Carter, George T. (See Jordan, John Joseph, assignor).....(Two cases.)	
120,711	Carter, Henry, Aylmer, Canada. Ditching-machine.....	Nov. 7, 1871
	Carter, Hosea B. (See Johnson, William, assignor.)	
5,134	Carter, John W., South Orange, N. J. Paper-box cover.....	July 25, 1871
4,317	Carter, Merrill E., Syracuse, N. Y., and Elisha Mets, Rochester, N. Y.; said Mets assignor to Hayden & Hahn. Slide for extension-tables.....(Reissue).....	April 4, 1871
119,316	Carter, Wesley C., and James P. Emery, Galva, Ill. Desk for school-teachers, &c.....	Sept. 26, 1871
	Carver, Cephas R. (See Brown, Samuel, assignor.)	
113,495	Carver, Erastus H., Humberstone, Canada, and George M. Baker, Buffalo, N. Y. Corn-husker.....	April 11, 1871
116,021	Cary, Alanson, New York, N. Y. Telegraph-wire coupling.....	June 20, 1871
116,266	Same.....Mode of tempering springs.....	June 27, 1871
116,267	Same.....Tempering-oven.....	June 27, 1871
118,341	Cary, Albert, assignor to B. F. Little and R. B. Brindle, Norwich, N. Y. Wash-stand bracket.....	Aug. 22, 1871
114,920	Caryl, Alexander H., Groton, Mass. Machine for pointing horseshoe-nails.....	May 16, 1871
117,148	Same.....Manufacture of nails for horseshoes.....	July 18, 1871
	Case, Charles G., and George L. Davenport. (See Davenport & Case.)	
114,921	Case, Charles P., Troy, Pa. Saw-filing machine.....	May 16, 1871
	Case, Emerson J., <i>et al.</i> (See Baker, Root & Case.)	
118,905	Case, Israel B. B., Toledo, Ohio. Blast-furnace.....	Sept. 12, 1871
121,155	Case, James W., assignor of one-half interest to John Gilbert, Ypsilanti, Mich. Milk-safe.....	Nov. 21, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,432	Case, Jarvis, La Fayette, Ind. Cultivator.....	Feb. 7, 1871
112,545	Case, Joel T., assignor to National Water-Wheel Company, Bristol, Conn. Water-wheel.....	Mar. 14, 1871
4,329	Same..... (Division A, reissue).....	April 11, 1871
4,330	Same..... (Division B, reissue).....	April 11, 1871
119,320	Same.....	Sept. 26, 1871
5,069	Case, Julian M., North Lansing, Mich. Plate of alarm-locks..... (Design).....	July 4, 1871
114,922	Case, Schuyler S., Marion, N. Y. Churn.....	May 16, 1871
116,022	Case, Warren, Troy, Ill. Rotary engine.....	June 20, 1871
121,183	Same.....	Oct. 24, 1871
4,567	Cash, Joseph, England. Dress-trimming..... (Design).....	Jan. 17, 1871
4,568	Same..... (Design).....	Jan. 17, 1871
4,569	Same..... (Design).....	Jan. 17, 1871
4,570	Same..... (Design).....	Jan. 17, 1871
4,571	Same..... (Design).....	Jan. 17, 1871
4,572	Same..... (Design).....	Jan. 17, 1871
4,573	Same..... (Design).....	Jan. 17, 1871
4,574	Same..... (Design).....	Jan. 17, 1871
4,575	Same..... (Design).....	Jan. 17, 1871
4,576	Same..... (Design).....	Jan. 17, 1871
4,577	Same..... (Design).....	Jan. 17, 1871
4,578	Same..... (Design).....	Jan. 17, 1871
4,579	Same..... (Design).....	Jan. 17, 1871
4,580	Same..... (Design).....	Jan. 17, 1871
4,581	Same..... (Design).....	Jan. 17, 1871
4,582	Same..... (Design).....	Jan. 17, 1871
4,583	Same..... (Design).....	Jan. 17, 1871
4,584	Same..... (Design).....	Jan. 17, 1871
4,613	Casper, Charles, assignor to the Meriden Silver-Plate Company, Meriden, Conn. Dessert set..... (Design).....	Jan. 31, 1871
4,614	Same..... (Design).....	Jan. 31, 1871
117,257	Cass, Frederick G. (See Parker, Sanford A., assignor.)	
113,980	Cass, James F., L'Orignal, Canada. Wheeled vehicle.....	July 25, 1871
111,608	Castellaw, Edwin A., Savannah, Ga. Locomotive smoke-stack.....	April 25, 1871
	Castelow, Elijah D., Meriden, Conn. Flower-stand.....	Feb. 7, 1871
	Same..... (See Smith, Henry G., assignor.)	
112,780	Castle, Chauncey H., and Samuel H. Emery, jr. (See Emery & Castle.) Castle, Frederic, assignor to self and Newbury J. Eaton, Montana, Iowa. Combined gauge and try-square.....	Mar. 21, 1871
116,805	Castle, Frederic, assignor to self and Louis Burges, Montana, Iowa. Combined gauge and try-square.....	July 11, 1871
120,035	Caswell, Ezra, assignor of one-half interest to A. H. Towar, Lyons, N. Y. Wagon-seat fastening.....	Oct. 17, 1871
112,321	Caswell, Ralph B., Springfield, Mass. Toe-calk bar. (Antedated March 2, 1871).....	Mar. 7, 1871
113,140	Caswell, William A., assignor to self, Albert T. Allen, and William D. Hilton, Providence, R. I. Top-roll for spinning, &c.....	Mar. 23, 1871
113,255	Cate, Ebenezer, East Woburn, Mass. Roll for rolling horseshoes.....	April 4, 1871
117,980	Cate, Henry S., Deerfield, Pa. Packing for oil-wells.....	Aug. 15, 1871
114,262	Catlin, Seth C., Cleveland, Ohio. Inkstand.....	May 2, 1871
4,617	Same..... (Division A, reissue).....	Oct. 31, 1871
4,618	Same..... (Division B, reissue).....	Oct. 31, 1871
121,233	Same..... Sponge cup.....	Nov. 23, 1871
117,600	Caton, Charles, Boyd's Mills, Ohio. Railway cattle guard.....	Aug. 1, 1871
	Catt, Milton, and James B. Conaty. (See Conaty & Catt.)	
	Canghell, R. N. (See Nevens, George H., assignor.)	
110,630	Caubape, Pierre, New York, N. Y. Pill-machine.....	Jan. 3, 1871
117,862	Cauldwell, James A., assignor to Frank L. and George Johnson, Orlando and Bradford C. Hurd, and Samuel M. Barker, Watkins, N. Y. Harvester.....	Aug. 8, 1871
118,432	Caulfield, Edward, Oswego, N. Y. Steam-heater.....	Aug. 29, 1871
	Caulfield, Ignatius. (See Broadwell, Charles B., assignor.)	
121,586	Cavaryl, John F., Flushing, N. Y. Purifying acetic acid.....	Dec. 5, 1871
120,490	Caven, John, Indianapolis, Ind. Fire-place grate.....	Oct. 31, 1871
	Cavender, John. (See Tompkins, James V., assignor.)	
120,933	Cawthon, Simon I. S., and Abel F. Tatom, Troy, Ala. Coffee-pot.....	Nov. 14, 1871
	Cawthorn, Orville F., et al. (See Worthman, John E., assignor.)	
120,939	Cazier, John Randolph, Hemlock, Mich. Washing-machine.....	Nov. 14, 1871
117,258	Center, Joshua C., Mason City, Ill. Harrow.....	July 25, 1871
4,623	Chace, John K., assignor to Silas A. Hsley and Charles L. Northrup, New York, N. Y. Fastening for paint-cans, &c..... (Reissue).....	Nov. 7, 1871
115,162	Chadwick, Benjamin B., Buffalo, N. Y. Plant-grower. (Antedated May 12, 1871).....	May 23, 1871
116,632	Chafee, Vosco M., Clay City, Ill. Slide for wagons.....	July 4, 1871
117,601	Chaffee, Charles W., Des Moines, Iowa. Fire and water proof roofing.....	Aug. 1, 1871
115,569	Challinor, David, Birmingham, Pa. Tool for molding glass.....	June 6, 1871
115,932	Challoner, George, Omro, Wis. Shingle-machine.....	Jan. 13, 1871
112,220	Chalmers, William, Philadelphia, Pa. Apparatus for heating propagating-beds. Chamberlain & Co. (See Crowley & Chamberlain, assignors.)	Feb. 23, 1871
	Chamberlain, Addison E., and John B. Crowley. (See Crowley & Chamberlain.)	
116,154	Chamberlain, Dexter H., West Roxbury, Mass. Railroad-car seat.....	June 20, 1871
115,155	Same..... Tap or faucet for bottles.....	June 20, 1871
116,156	Same..... Elevator.....	June 20, 1871
121,705	Same..... Lawn-mower.....	Dec. 12, 1871
113,496	Chamberlain, William H., Denton, Mich. Hasp-lock.....	April 11, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,806	Chamberlin, Charles A., Pittsburgh, Pa. Anchor.....	July 11, 1871
114,643	Chamberlin, Edward R., Bellefontaine, Ohio. Washing-machine.....	May 9, 1871
114,923	Chamberlin, James P., North Abington, Mass. Spring bed and seat.....	May 16, 1871
121,990	Same..... Spring for beds and seats.....	Dec. 19, 1871
111,814	Chamberlin, Martin J., Springfield, Mass. Breech-loading fire-arm.....	Feb. 14, 1871
118,587	Chamberlin, Martin J., and Dexter Smith, (See Smith & Chamberlin.)	
118,587	Chamberlin, Melvin C., Wabashaw, Minn. Tire-tightener.....	Aug. 29, 1871
115,701	Chambers, Charles F., Hutsonville, Ill. Plow.....	May 6, 1871
4,266	Chambers, Cyrus, jr., Philadelphia, Pa. Paper-folding machine..... (Reissue)...	Feb. 21, 1871
113,256	Same..... Paper cutting and folding machine.....	April 4, 1871
113,257	Chambers, Cyrus, jr., and William Mendham, assignors to Edward and Cyrus Chambers, jr., Philadelphia, Pa. Paper-cutting and folding machine.....	April 4, 1871
118,686	Chambers, David H., <i>et al.</i> (See Duff, John T., assignor.)..... (Design.)	
117,981	Chambers, George W., Talladega, Ala. Medical compound.....	Sept. 5, 1871
	Chambers, William B., Decatur, Ill. Corn-planter.....	Aug. 15, 1871
	Champagne, Fred., and John Wellfare. (See Wellfare & Champagne.)	
114,263	Chandler, Azer, Rome, N. Y. Cheese-hoop flange.....	May 2, 1871
121,750	Chandler, Hiram C., Peru, Ind. Automatic fly-brush.....	Dec. 12, 1871
119,076	Chandler, Henry, Buffalo, N. Y. Liquid-meter.....	Sept. 19, 1871
118,906	Chandler, Hull, Bennington, Vt. Bed-spring.....	Sept. 12, 1871
113,398	Chandler, J. Frank, Boston, Mass. Towel-bracket and sponge-holder.....	April 4, 1871
119,317	Chandler, Thomas A., Rockford, Ill. Drill-nut wrench.....	Sept. 26, 1871
110,738	Chandler, Thomas W., assignor to self and Nicholas DePeyster, New York, N. Y. Preserving wood.....	Jan. 3, 1871
	Channing, William F., Providence, R. I., and Moses G. Farmer, Boston, Mass. Electro-magnetic fire-alarm telegraph for cities..... (Extension)...	May 18, 1871
115,570	Chapin, Cornelius V., Collinsville, Conn. Varnish for coating and water-proofing.....	June 6, 1871
112,546	Chapin, Harlow F., Rochester, N. Y. Animal-poke.....	Mar. 14, 1871
4,667	Same..... same..... (Reissue)...	Dec. 12, 1871
116,683	Chapin, Harlow F., assignor to self and Pollock, Weaver & Co., Rochester, N. Y. Animal-poke.....	July 4, 1871
111,175	Chapin, Henry Albert, New York, N. Y. Apparatus for carbureting air.....	Jan. 24, 1871
	Chapin, Philip E., <i>et al.</i> (See Coe, Daniel S., assignor.)	
119,917	Chapman, Cass, Chicago, Ill. Paper-file. (Antedated Sept. 27, 1871)	Oct. 17, 1871
5,102	Chapman, Frank R., Greenfield, Mass. Handle and bolster for table cutlery. (Design).....	July 11, 1871
111,907	Chapman, Franklin B., Salisbury, Mo. Churn.....	Feb. 21, 1871
115,702	Chapman, George, Rockford, Ill. Bolt-heading machine.....	June 6, 1871
118,687	Chapman, James W., assignor to self and Samuel J. Smith, Madison, Ind. Churn.....	Sept. 5, 1871
120,036	Chapman, John, Amsterdam, N. Y. Rock drill.....	Oct. 17, 1871
	Chapman, John C. (See Warren, John, assignor.)	
121,587	Same..... Waltham, Mass. Valve-indicator.....	Dec. 5, 1871
	Chapman, John C., and Andrew Robes. (See Robes & Chapman.)	
113,627	Chapman, Luke, assignor to self and the Collins Company, Collinsville, Conn. Gang-plow.....	April 11, 1871
120,572	Same..... same.....	Nov. 7, 1871
119,011	Chapman, Luke, assignor to self and W. J. Wood, Collinsville, Conn. Rotary pump.....	Sept. 19, 1871
121,083	Chapman, Luke, Collinsville, Conn. Wrench.....	Nov. 21, 1871
116,412	Chapman, Matthew, Greenfield, Mass. Table knife and fork.....	June 27, 1871
111,043	Chapman, Nathan, Hopedale, Mass. Hay and cotton press.....	Jan. 17, 1871
119,573	Same..... Baling-press.....	Oct. 3, 1871
117,602	Chapman, Rufus B., assignor to John C. Chapman, Waltham, Mass. Ceiling dip-pipe of gas apparatus.....	Aug. 1, 1871
117,045	Chapman, William, Mount Vernon, N. Y. Portable water-closet.....	July 18, 1871
	Chapman, William, <i>et al.</i> (See Jaquith, Frederick P., assignor.)	
115,434	Chapman, William D., Theresa, N. Y. Minnow-propeller.....	May 30, 1871
120,419	Chappel, John, Chenango Forks, N. Y. Milk-refrigerator.....	Oct. 31, 1871
111,317	Chappel, John H., assignor to self, Robert Seaman, and Henry W. Shepard, New York, N. Y. Culinary vessel.....	Jan. 31, 1871
	Chappell, Enos L., and Guy E. (See Wheeler, Shepherd H., assignor)	
115,435	Chappell, John W., assignor to self and Dennis Macomber, Berlin, Mich. Twisting and spinning heads.....	May 30, 1871
113,258	Charles, Augustus, Pittsburgh, Pa. Rubber and brush.....	April 4, 1871
4,529	Same..... same..... (Reissue)...	Aug. 29, 1871
112,781	Charles, Benjamin, Akron, Ohio. Pen-holder.....	Mar. 21, 1871
114,761	Charles, Isaac, Allegheny City, Pa. Cement for coating and sealing coffins, &c.....	May 16, 1871
113,497	Charleton, John B., Kalamazoo, Mich. Cradle.....	April 11, 1871
4,943	Charlton, Richard, assignor to W. and J. Sloane, England. Carpet-pattern. (Design).....	May 30, 1871
116,930	Charter, John, Sterling, Ill. Molding cigars.....	July 11, 1871
112,547	Chase, Andrew Jackson, Boston, Mass. Refrigerator.....	Mar. 14, 1871
121,751	Same..... same.....	Dec. 12, 1871
	Chase, Andrew J., and W. D. Smith. (See Smith & Chase.)	
	Chase, Charles C. (See Tolson, Henry H., assignor.)	
118,106	Chase, Frederic, Philadelphia, Pa. Pipe and tube for water, gas, &c.....	Aug. 15, 1871
113,141	Chase, John F., Westbrook, Me. Rotary harrow.....	Mar. 23, 1871
4,464	Same..... Rotary harrow-teeth..... (Reissue)...	July 11, 1871
113,498	Chase, Milton, Haverhill, Mass. Sewing-machine.....	April 11, 1871
4,634	Chase, Oliver Rice, assignor to Chase & Co., Boston, Mass. Machine for the manufacture of lozenges..... (Reissue)...	Nov. 14, 1871
	Chase, Oscar C. (See Favor, Zebulon C., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Chase, T. A., <i>et al.</i> (See Colby, Calvin M., assignor.)	
	Chase, William L., <i>et al.</i> (See Smith, Charles B., assignor.)	
120,621	Chassaing-Baptist, Edme, Buenos Ayres. Adjustable elastic measuring-scale.	Nov. 7, 1871
119,318	Chatain, Henry, Washington, D. C. Frame for drying lace, &c.	Sept. 26, 1871
118,195	Chatard, Ferdinand E., jr., Baltimore, Md. Hot-air furnace.	Aug. 22, 1871
122,105	Same..... Draught-regulator for furnaces and stoves.	Dec. 26, 1871
115,703	Chattaway, Samuel W. M., Middletown, Conn. Culinary vessel.	June 6, 1871
	Chatterton, George and James. (See Vanstone, Samuel, assignor.)	
116,268	Chaumont, Jules, assignor to Lalance and Grojean Manufacturing Company, Woodhaven, N. Y. Curry-comb.	June 27, 1871
112,548	Chauncey, Robert, Syracuse, N. Y. Burnisher for boots and shoes.	Mar. 14, 1871
119,012	Chavons, Hillyr, assignor to self and William P. De Bolt, Union City, Ind. Lathe.	Sept. 19, 1871
121,333	Cheeseman, James L., assignor of one-half interest to Henry C. Cheeseman, Gardiner, Me. Swinging-railway for loading vessels.	Nov. 21, 1871
120,037	Cheetham, Linneus, Lewiston, Me. Roller-cleaner for spinning-machines.	Oct. 17, 1871
117,149	Chellow, Joseph, Glassford, Ill. Harrow.	July 18, 1871
120,622	Chenal, Joseph Julien, France. Apparatus for converting motion.	Nov. 7, 1871
121,991	Cheney, Danforth, Brookfield, Mo. Watering device for railroads.	Dec. 19, 1871
116,553	Cheney, Henry, Little Falls, N. Y. Nail-hammer.	July 4, 1871
113,499	Cheney, Horace H., East Saginaw, Mich. Lock for handcuffs.	April 11, 1871
119,221	Cheney, Return J., Petaluma, Cal. Horse-power.	Sept. 26, 1871
116,807	Cherrington, Leroy Jones, Boston, Mass. Knife and fork rest.	July 11, 1871
110,824	Cherrington, Robert E., South Boston, Mass. Compound for stove-polish.	Jan. 10, 1871
120,940	Cherry, Henry, England. Pulley-block.	Nov. 14, 1871
	Cherry, J. W., and Thomas Logan. (See Devenport, Frank P., assignor.)	
121,752	Cherry, John Wesley, assignor to self, Jesse B. Quinby, and Thomas Logan, Carthage, Ill. Fence. (Antedated Nov. 25, 1871).	Dec. 12, 1871
121,753	Chesebro, James F., Trenton, N. J. Washing-machine.	Dec. 12, 1871
118,433	Chesley, James E., assignor to Jefferson J. Gray, Boston, Mass. Bracket.	Aug. 29, 1871
112,782	Chesman, Francis G., Lemont, Ill. Thrashing-machine.	Mar. 21, 1871
120,241	Chesney, Ezra E., Bushnell, Ill. Seed-planter.	Oct. 24, 1871
117,362	Chess, Henry, Pittsburgh, Pa. Furnace for heating metal plates, calcining ores, and for other purposes.	July 25, 1871
112,017	Chester, Stephen, New York, N. Y. Signal-box for fire-alarm telegraphs. (Antedated Feb. 18, 1871).	Feb. 21, 1871
114,924	Same.....Elizabeth, N. J. Telegraph-insulator.	May 16, 1871
113,741	Chesterman, Edwin, Tremont, N. Y. Table for sewing and knitting machines.	April 18, 1871
117,863	Chestnutwood, Augustus, Davidsville, Pa. Fire-screen.	Aug. 8, 1871
120,242	Cheyney, Solon L., Springfield, Ohio. Drier.	Oct. 24, 1871
121,588	Chichester, Charles F., Brooklyn, N. Y. Grain-drier.	Dec. 5, 1871
110,896	Chichester, Lewis S., Brooklyn, N. Y. Grain-drier.	Jan. 10, 1871
121,847	Chichester, Lewis S. and Charles F., assignors to Charles F. Chichester, Brooklyn, N. Y. Grain-drier, cooler, and scourer.	Dec. 12, 1871
115,163	Chicken, William, assignor to Amos L. Wood, trustee, Boston, Mass. Sewing-machine for working button-holes.	May 23, 1871
120,855	Chicken, William, and Eri S. Moulton, assignors to Amos L. Wood, Chelsea, Mass. Button-hole sewing-machine.	Nov. 14, 1871
121,334	Chickering, Charles F., New York, N. Y. Upright piano.	Nov. 28, 1871
116,157	Child, Cyril C. (See Paine, Charles, assignor.)	
	Child, George F., Dayton, Ohio. Apparatus for holding and adjusting umbrellas on vehicles.	June 20, 1871
5,197	Child, Pascal P., Saint Louis, Mo. Barn-door hanger. (Design).	Aug. 15, 1871
5,251	Same.....Riser for wagon-seat. (Design).	Sept. 5, 1871
118,688	Same.....Journal-box for grindstones.	Sept. 5, 1871
119,319	Same.....Reversible hinge.	Sept. 26, 1871
120,492	Same.....Hinge for gates, &c.	Oct. 31, 1871
	Child, Pascal P., <i>et al.</i> (See Bolton, Simeon R., assignor.)	
119,446	Childs, Jonathan, West Troy, N. Y. Thill-coupling.	Oct. 3, 1871
116,808	Childs, Paris, Northampton, Mass. Oil-can.	July 11, 1871
	Childs, R. H., <i>et al.</i> (See Colby, Calvin M., assignor.)	
111,044	Chilson, William E., Troy, Pa. Medical compound pill for cure of colds, &c.	Jan. 17, 1871
122,106	Chinn, Richard H., Washington, D. C., George Hall and Jesse J. Fitch, Morgantown, W. Va. Box-opener.	Dec. 26, 1871
121,335	Chiple, William H., Libertytown, Md. Automatic fly-brush.	Nov. 28, 1871
116,554	Chipman, Emanuel, Baltimore, Md. Wheat-cleaner.	July 4, 1871
	Chisholm, Alexander. (See Stuart, William M., assignor.)	
111,815	Chisholm, Henry, Cleveland, Ohio. Apparatus for manufacture of Bessemer steel.	Feb. 14, 1871
114,109	Same.....Apparatus for manufacture of Bessemer steel.	April 25, 1871
115,279	Same.....Converter for the manufacture of Bessemer steel.	May 30, 1871
4,439	Same.....Apparatus for the manufacture of Bessemer steel. (Reissue).	June 27, 1871
112,418	Choate, Charles B., East Saginaw, Mich. Machine for cutting sheet-metal.	Mar. 7, 1871
119,820	Same.....Machine for cutting and punching shingle-bands.	Oct. 10, 1871
117,513	Chormann, Ernest G., Philadelphia, Pa. Universal slide-rest for lathes.	Aug. 1, 1871
	Chisholm, George W. (See Sweet, Asel, assignor.)	
116,023	Christian, Daniel, Chagrin Falls, Ohio. Seat for stores. (Antedated June 17, 1871).	June 20, 1871
115,164	Christiansen, Martin, Winneconne, Wis. Sand and seed ejector.	May 23, 1871
4,811	Christie, David, Chillicothe, Ohio. Claw-bar. (Design).	April 18, 1871
117,046	Same.....Same.	July 18, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
5,272	Christie, Joseph Miller, assignor to Henry Jecks Dixon & Sons, England. Carpet-pattern..... (Design).....	Sept. 19, 1871
121,277	Christner, Engelbert P., and Jacob Christ Bandle. (See Bandle & Christner.)	
115,571	Christophe, Louis, and John Montigny, Belgium. Machine-gun.....	Nov. 28, 1871
119,320	Christy, John, Clyde, Ohio. Pruning-shears.....	June 6, 1871
114,527	Chubb, Archibald L., Grand Rapids, Mich. Horse hay-rake.....	Sept. 26, 1871
	Chubb, Thomas H., and William G. Marston, Post Mills, Vt. Clothes-drier.....	May 9, 1871
	Chubb, Thomas J., New York, N. Y. Separating ore..... (Extension).....	Aug. 24, 1871
	Chubbuck, Levi. (See Walker, John, assignor.)	
	Church, Benjamin O., and Riley Burdett. (See Burdett & Church.)	
112,901	Church, Cornelius A. (See Tilyon, Albert D., assignor.)	
117,383	Church, Dwight Madison, Holyoke, Mass. Thread-guide for winding-machines.....	Mar. 21, 1871
112,124	Church, James, Saint Louis, Mo. Clamp for entering blind-slats.....	July 25, 1871
114,925	Churchill, Frederic A., Pittsfield, Mass. Gun-sight.....	Feb. 28, 1871
	Churchill, Frederic L., and Robert C. Beach, Minneapolis, Minn. Breeching-holder for harness.....	May 16, 1871
	Churchill, Henry. (See Lewis, Sylvester, assignor.)	
	Same..... (See Cone, John L., assignor.)	
111,514	Churchill, Lee, Troy, N. Y. Paper-collar box.....	Feb. 7, 1871
114,762	Churchman, John, assignor to self and Carbon Stove Company, Burlington, N. J. Grate for stoves, &c.....	May 16, 1871
111,176	Churchman, William H., Indianapolis, Ind. Scouring, washing, and wringing machine.....	Jan. 24, 1871
	Cinnamon, John. (See MacCartney, William N., assignor.)	
4,677	Cinquini, Pietro, assignor to Parker & Whipple Co., West Meriden, Conn. Drawer-pull..... (Design).....	Feb. 28, 1871
4,695	Same..... Bell-crank and escutcheon..... (Design).....	Mar. 7, 1871
4,874	Cinquini, Pietro, assignor to Charles Parker, Meriden, Conn. Counter weighing-scale..... (Design).....	May 9, 1871
4,984	Cinquini, Pietro, assignor to Bradley & Hubbard, West Meriden, Conn. Chan-delier..... (Design).....	June 13, 1871
	Cinquini, Pietro, and John A. Everts. (See Everts & Cinquini.)	
113,628	Cipperley, John, Galesville, N. Y. Mastic roofing.....	April 11, 1871
112,322	Clabby, James, Lenox, Mass. Glass flattening furnace and leer.....	Mar. 7, 1871
117,740	Clack, William, Prairie du Chien, Wis. Washing-machine.....	Aug. 8, 1871
	Clafin, William, trustee of the American Wire-Quilted Sole Association. (See Godfrey, Benjamin D., assignor.)	
121,931	Clagstone, Henry G. (See Lang, Charles, assignor.)	
	Clague, William H., and Robert B. Randall, assignors to selves and Ezra R. Andrews, Rochester, N. Y. Addressing-machine. (Antedated Dec. 2, 1871).....	Dec. 19, 1871
120,623	Clague, William H., et al. (See Andrews, Randall & Clague.)	
	Clampitt, George W., assignor to Henry F. Barrows, Attleborough, Mass. Chain for watches, &c.....	Nov. 7, 1871
115,280	Clapham, James Henry, New York, N. Y. Traction-engine.....	May 30, 1871
114,264	Clapp, Albion R., assignor to James R. Nichols & Co., Boston, Mass. Citrate of iron and manganese for medical purposes.....	May 2, 1871
117,514	Clapp, Charles, assignor to Erastus C. and Chaucey P. Gregg, Trumansburgh, N. Y. Harvester.....	Aug. 1, 1871
119,918	Clapp, Edison, Boston, Mass. Combination-scissors.....	Oct. 17, 1871
120,712	Clapp, James H., Providence, R. I. Screw-die press.....	Nov. 7, 1871
118,107	Clapp, John C., Boston, Mass. Friction-brake for machinery.....	Aug. 15, 1871
119,695	Clapp, Rollin M., Vergennes, Vt. Machine for turning and polishing.....	Oct. 10, 1871
	Claringdon, Edward, and Solomon Miller. (See Miller & Claringdon.)	
	Clark, Albert, and Jesse W. Craven. (See Craven & Clark.)	
119,821	Clark, Alexander, assignor to Stephen G. Perkins, Albany, Ill. Mechanical movement.....	Oct. 10, 1871
118,196	Clark, Alfred R., Albia, Iowa. Post-hole auger.....	Aug. 22, 1871
111,177	Clark, Allison N., Plainville, Conn. Die for making felloe-plates.....	Jan. 24, 1871
120,493	Clark, Alvin B., Richmond, Ind. Carriage-curtain fastening.....	Oct. 31, 1871
	Clark, Benjamin F., and Rus W. Dugan. (See Dugan & Clark.)	
114,265	Clark, Celia P., Lockhaven, Pa. Needle-sharpening attachment for sewing-machines.....	May 2, 1871
111,515	Clark, Charles B., Buffalo, N. Y. Hinge for gates.....	Feb. 7, 1871
4,855	Same..... Gate-hinge..... (Design).....	May 2, 1871
119,263	Same..... Latch for gates. (Antedated Sept. 23, 1871).....	Sept. 26, 1871
119,121	Clark, Charles H., Wyo. Ter. Tube-expander.....	Sept. 19, 1871
117,741	Clark, Cullen B., Armada, Mich. Lamp-chimney cleaner.....	Aug. 8, 1871
	Clark, Cyrus S. (See Merriam, George H., assignor.)	
112,686	Clark, David H., and Henry Winson, New Haven, Conn. Furniture-pad.....	Mar. 14, 1871
111,318	Clark, Decius W., Chicago, Ill. Compound for enameling brick.....	Jan. 31, 1871
114,763	Same..... Enameling gas-retorts, &c.....	May 16, 1871
114,528	Clark, Edwin, Lancaster, Pa. Hot-air furnace.....	May 9, 1871
	Clark, Elijah, and James E. Thompson. (See Thompson & Clark.)	
120,243	Clark, Erastus Y., New York, N. Y. Saw-set.....	Oct. 24, 1871
115,572	Clark, George, Buffalo, N. Y. Apparatus for evaporating liquids by means of air-blasts.....	June 6, 1871
115,573	Same..... Process and apparatus for purifying brine and other liquids.....	June 6, 1871
112,221	Clark, George and Samuel P., assignors to selves and Franklin B. Ives, Princeton, Ill. Hedge-trimmer.....	Feb. 28, 1871
114,408	Clark, George Homer, assignor to self and Peter B. Reid, Cleveland, Ohio. Reap-ing-machine.....	May 2, 1871
	Clark, George T. (See Vance, William A., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,856	Clark, George W., Council Bluffs, Iowa. Steam-governor.	Nov. 14, 1871
122,107	Clark, Henry A., Boston, Mass. Treadle for sewing-machines. (Antedated Dec. 6, 1871)	Dec. 26, 1871
118,514	Clark, Horace L., Rahway, N. J. Door for railway freight-cars	Aug. 29, 1871
117,742	Clark, Isaac, Dryden, Mich. Trace-buckle	Aug. 8, 1871
110,897	Clark, Jacob, Brush Valley, Pa. Churn	Jan. 10, 1871
116,158	Clark, James B., Plantsville, Conn. Apparatus for heating bolt-blanks	June 20, 1871
	Same.....(See Ransom, George B., assignor.)	
	Clark, James B., and Joshua H. Moore. (See Moore & Clark.)	
114,110	Clark, James M., Jersey City, N. J. Pen and pencil case	April 25, 1871
115,704	Same.....same	June 6, 1871
117,603	Clark, James M., assignor to Franklin L. Clark, Lancaster, Pa. Washing-machine	Aug. 1, 1871
121,589	Same.....Wringing-machine	Dec. 5, 1871
118,434	Clark, James M., assignor to Ephraim S. Johnson, Jersey City, N. J. Pen and pencil case	Aug. 29, 1871
	Clark, James T. (See Pangburn, James V., assignor.)	
113,629	Clark, James W., Ontville, Ohio. Picket-cutter	April 11, 1871
114,644	Clark, Jedediah P., Philadelphia, Pa. Compensating watch-regulator	May 9, 1871
118,515	Clark, John, England. Railway-car truck	Aug. 29, 1871
120,713	Same.....Locomotive-engine	Nov. 7, 1871
118,843	Clark, John, Harrisburgh, Pa. Piston-packing	Sept. 12, 1871
	Same.....(See Ebbert, John, assignor.)	
	Clark, Josephus H. (See Harris, Samuel W., assignor.).....(Two cases.)	
117,864	Clark, Levi S., Bethel, Conn. Mowing-machine	Aug. 8, 1871
115,165	Clark, Locklin N., Brighton, Mich. Fence	May 23, 1871
118,907	Clark, Milton W., assignor to R. Ball & Co., Worcester, Mass. Cutter-head for molding-machines	Sept. 12, 1871
121,924	Clark, Nathaniel, Malden, Mass. Knitting-machine and process of knitting	Dec. 12, 1871
112,783	Clark, Newton J., assignor to self and Milton H. Clark, Clarkston, Mich. Thill-coupling	Mar. 21, 1871
119,741	Clark, Orrin R., La Fayette, Ind. Shank-laster for boots and shoes	Oct. 10, 1871
	Clark, Peter. (See Hill, Leonard B., assignor.)	
113,259	Clark, Peter E., Hartford, Conn. Gaiter	April 4, 1871
4,678	Clark, Patrick J., West Meriden, Conn. Drawer-pull.....(Design)	Feb. 23, 1871
	Clark, P. J. (See Pierrepont, Charles H., assignor.)	
	Clark, P. J. (See Kintz, Joseph, assignor.).....(Four cases.)	
	Same.....(See Kintz, Joseph, assignor.).....(Two cases.) (Design.)	
112,549	Clark, Richard A., Unadilla, N. Y. Clip for buggy-springs. (Antedated March 9, 1871)	Mar. 14, 1871
	Clark, Samuel, <i>et al.</i> (See Staples, John H., assignor.)	
110,825	Clark, Sarah J., Richmond, Ind. Washing-machine	Jan. 10, 1871
121,336	Clark, Sarah M., Beaver Dam, Wis. Cake-stirrer	Nov. 28, 1871
117,443	Clark, Stuart D., Minneapolis, Minn. Inkstand	Aug. 8, 1871
	Clark, Thomas R., <i>et al.</i> (See Heath, Henry, assignor).....(Reissue.)	
117,744	Clark, Thomas S., Chicago, Ill. Tuyere	Aug. 8, 1871
122,156	Clark, William, Shelburne, Conn. Base-burning cooking-stove	Dec. 26, 1871
113,260	Clark, William A., Woodbridge, Conn. Device for preparing beefsteak for broiling	April 4, 1871
121,706	Same.....Westville, Conn. Box for carriage-wheels	Dec. 12, 1871
121,707	Same.....Woodbridge, Conn. Hollow auger	Dec. 12, 1871
4,668	Same.....Westville, Conn. Expansive bit.....(Reissue)	Dec. 12, 1871
	Clark, William C. (See Rulon, Henry M. and Jesse F., assignors.)	
118,908	Clark, William F., Mount Pleasant, Iowa. Bed and seat bottom	Sept. 12, 1871
112,784	Clark, William J., Lina, Ill. Egg and fruit carrier	Mar. 21, 1871
121,754	Clark, William P., Medford, Mass. Draught-cock	Dec. 12, 1871
120,624	Same.....Piqua, Ohio. Bee-hive	Nov. 7, 1871
113,261	Clarke, Alfred, Philadelphia, Pa. Shoemakers' pincers	April 4, 1871
112,902	Clarke, Arthur, Boston, Mass. Shoemakers' hammer	Mar. 21, 1871
119,447	Same.....Shoemakers' pincers	Oct. 3, 1871
	Clarke, Elizur E., deceased, by Franklin N. Clark, administrator, New Haven, Conn. Machine for cutting pasteboard for boxes.....(Extension)	Feb. 29, 1871
117,865	Clarke, Frederick M., Washington, D. C. Croquet-arch	Aug. 8, 1871
112,687	Clarke, George E., Racine, Wis. Fanning-mill	Mar. 14, 1871
118,435	Clarke, George Pemberton, New York, N. Y. Creeping-doll	Aug. 29, 1871
121,042	Clarke, George R., New York, N. Y. Washing and wringing machine	Nov. 21, 1871
	Clarke, George S. W., and Edward Bolman. (See Bolman & Clarke.)	
118,197	Clarke, Orlando, Rockford, Ill. Steam-generator	Aug. 22, 1871
117,047	Clarke, Thomas C., and Adolphus Bonzano, Philadelphia, Pa. Connection for iron and steel bridges	July 18, 1871
117,048	Same.....Connection for iron and steel bridges	July 18, 1871
117,049	Same.....same	July 18, 1871
117,050	Same.....same	July 18, 1871
121,848	Same.....same	Dec. 12, 1871
121,084	Clarke, Thomas M., Winsted, Conn. Drawing-knife	Nov. 21, 1871
	Clarke, William Penn, <i>et al.</i> (See Starr, William M., assignor.)	
111,609	Clarkson, George, assignor to self, Samuel D. Wilder, and Albert Sherwin, Elgin, Ill. Alcohol-still	Feb. 7, 1871
114,764	Clary, Nathan G., assignor to self and Robert Reddel, Northfield, Minn. Washing-machine	May 16, 1871
120,038	Class, George C. A., Chicago, Ill. Music-leaf turner	Oct. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Claughton, H. O., <i>et al.</i> (See McClure, William B., assignor.)	
	Same.....same.....(Reissue.)	
118,909	Clause, John J., <i>et al.</i> (See Nicholson, Ezra, assignor.)	
	Claver, Max, assignor to A. Freutal, New York, N. Y. Spring-lock for ventila-	Sept. 12, 1871
118,689	lating sash.....	Sept. 5, 1871
113,855	Clawson, Clemant C., Raleigh, N. C. Rotary ice-shaver.....	April 18, 1871
120,184	Claxton, Frank J., and Charles D. Stevens, Saint Louis, Mo. Curenlio-catcher	Oct. 24, 1871
120,039	Clay, Edward C., Malden, Mass. Steam-heater.....	Oct. 17, 1871
112,550	Clay, Henry M., Easton, Pa. Slate-frame.....	
	Clay, Robert J., assignor to self and Tasker H. Marvin, New York, N. Y.	
	Creeping-doll.....	Mar. 14, 1871
111,107	Claypool, Albert, Weston, Ohio. Bee-hive.....	Jan. 24, 1871
	Clayton, Charles H., <i>et al.</i> (See La Monte, Saxe & Clayton.)	
117,982	Clayton, Daniel B., Columbia, S. C. Egg-beater.....	Aug. 15, 1871
117,983	Clayton, George, Cleveland, Ohio. Tire-machine. (Antedated Aug. 11, 1871)	Aug. 15, 1871
115,705	Clayton, Gregg, assignor to self and Samuel Ringwalt, Marshallton, Pa.	
	Apple-pulping machine.....	June 6, 1871
119,321	Clayton, Herbert, Lexington, Ky. Curtain-fixture.....	Sept. 26, 1871
	Clayton, Joseph, <i>et al.</i> (See Graichen, Frederick William, assignor.)..(Two cases.)	
118,108	Cleaveland, John B., Indianapolis, Ind. Arrow-spring.....	Aug. 15, 1871
116,555	Cleaver, Ellwood, North Wales, Pa. Windmill.....	July 4, 1871
	Cleeton, G. Edward. (See Smith, J. Boardman, assignor.)	
111,816	Clegg, John, Warwick, R. I. Let-off mechanism for looms.....	Feb. 14, 1871
112,222	Clemens, Gilbert H., Chicago, Ill. Steam safety-valve.....	Feb. 23, 1871
	Clemens, John H., and Henderson Ross. (See Ross & Clemens.)	
	Same.....same.....(Reissue.)	
121,392	Clemens, Samuel L., Hartford, Conn. Adjustable and detachable strap for	
113,742	garments.....	Dec. 19, 1871
	Clement, Franklin, assignor to Charles H. Buck and Wiley S. Wright, Saint	
	Louis, Mo. Cooking-stove.....	April 18, 1871
	Clement, William. (See Linsley, Newton, assignor.)	
115,574	Clements, Isaac, Fort Ann, N. Y. Eye-glass.....	June 6, 1871
110,739	Cleminshaw, Sherman, Troy, N. Y. Sewing-machine for working button-holes.	Jan. 3, 1871
118,690	Clemmer, William F., and George H., Alexandria, Ohio. Pruning-shears.....	Sept. 5, 1871
120,714	Clemmons, Alvens J., Aberdeen, Miss. Water-elevator.....	Nov. 7, 1871
121,849	Same.....Chain-machine.....	Dec. 12, 1871
116,269	Clemson, William, Middletown, N. Y. Saw-frame.....	June 27, 1871
118,198	Same.....Cross-cut saw.....	Aug. 22, 1871
119,696	Same.....Buck-saw frame.....	Oct. 10, 1871
119,967	Same.....Back-saw.....	Oct. 17, 1871
116,024	Clenny, Henry, Gallatin, Tenn. Ferry-boat.....	June 20, 1871
	Cleveland, Jehiel H., and Henry M. Andrus. (See Andrus & Cleveland.)	
	Cleveland Non-Explosive Lamp Company. (See House, Mark W., assignor.)	
	(Two cases.)	
117,866	Cleveland, William, Orange, N. J. Faucet.....	Aug. 8, 1871
117,984	Same.....Ventilating decanting-apparatus for oil-cans.....	Aug. 15, 1871
112,419	Cleveland, William, assignor to self and James Swan, Lawrence, Mass. Bit-	
	brace.....	Mar. 7, 1871
119,506	Clews, William, Ilion, N. Y. Instrument for extracting caps from cartridges..	Oct. 3, 1871
114,645	Cliff, Edward, Oswego, N. Y. Spring for railway-cars.....	May 9, 1871
119,574	Clifford, John C., Yonkers, N. Y. Coal-elevator.....	Oct. 3, 1871
115,166	Clift, Levi D., Philadelphia, Pa. Method of making spades and shovels.....	May 23, 1871
	Climmer, Henry, <i>et al.</i> (See McBeth, Bentel, Margedant & Climer.)	
113,262	Climmer, Henry, and Charles E. McBeth, Hamilton, Ohio. Cutter-head for plan-	
	ing-machines.....	April 4, 1871
120,941	Cline, William F., and Philip D. Weaver; said Weaver assignor to said Cline,	
115,025	Bendersville, Pa. Machine for boring posts.....	Nov. 14, 1871
	Clinton, Edward H., and William H. Lavinia, Chicago, Ill. Combined stove-	
	pipe damper and shelf.....	May 23, 1871
	Clinton Wire-Cloth Company. (See Waters, Charles H., assignor.) (Two cases.)	
	(Reissue.)	
	Same.....(See Waters & Orr, assignors).....(Two cases.)	
117,234	Clishee, George, Marlborough, Mass. Friction-clutch.....	July 13, 1871
119,968	Clogston, Lucius B., West Rutland, Vt. Gate for gang for marble-saws. (An-	
	tedated Sept. 30, 1871)	Oct. 17, 1871
116,566	Clopton, James P., Terry, Tenn. Cotton-planter.....	July 4, 1871
111,610	Close, Charles Saunders, Philadelphia, Pa. Stairway.....	Feb. 7, 1871
114,409	Close, John W., Buffalo, N. Y. Railway-frog and rail-coupling.....	May 2, 1871
113,142	Close, Thomas J., Philadelphia, Pa. Stove-leg.....	Mar. 23, 1871
4,371	Close, Walter R., assignor to self and Thomas N. Egery, Bangor, Me. Shingle-	
	machine.....(Reissue.)	May 9, 1871
116,413	Close, Walter R., assignor to self, John E. M. Sanford, Emon C. Smart, Job Col-	
	lett, Reuel W. Kimball, William Margesson & Son, and Frederick H. Coombs,	
	Bangor, Me. Friction-pawl or clutch-mechanism.....	June 27, 1871
122,225	Closterman, Henry, jr., Cincinnati, Ohio. Kitchen-table.....	Dec. 26, 1871
112,785	Clough, Joseph, and Joseph Crompton, Chicopee, Mass. Lappet-loom.....	Mar. 21, 1871
120,715	Clough, Theodore, New York, N. Y. Gas-burner.....	Nov. 7, 1871
116,025	Clow, Roderick E., and William H. Down, New York, N. Y. Water-elevator.....	June 20, 1871
120,716	Cluff, George F., Petersburg, Ill. Boring-machine.....	Nov. 7, 1871
113,630	Clute, John S., Henry W. Trissler, and Walter D. Trissler, Cleveland, Ohio.	
	Faucet.....	April 11, 1871
	Clute, Jonas H., and Jacob V. Vrooman. (See Vrooman & Clute.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,786	Clute, Nicholas, Schenectady, N. Y. Coating gas and water pipes	Mar. 21, 1871
115,766	Coale, Joseph M., Baltimore, Md. Slide-valve	June 6, 1871
121,590	Coate, Thomas H., and Lewis A. John, Pleasant Hill, Ohio. Rock-drilling machine	Dec. 5, 1871
111,908	Coates, Abraham, and George W. Lascell, Syracuse, N. Y. Valve for water-engines	Feb. 21, 1871
117,515	Coates, George H. (See Long, William A. N., assignor.)	Aug. 1, 1871
113,500	Coates, William B., Philadelphia, Pa. Composition sad-iron holder. (Ante-dated July 20, 1871)	April 11, 1871
115,821	Coats, Franklin A., Kelloggsville, Ohio. Weather-strip	June 13, 1871
117,150	Coatsworth, John. (See McHardy, Robert, assignor.)	July 18, 1871
118,844	Cobb, Benjamin F., West Troy, N. Y. Riveting-tool	Sept. 12, 1871
111,611	Cobb, Clinton L. (See Pool, John, assignor.)	Feb. 7, 1871
116,557	Cobb, Edward A., Philadelphia, Pa. Button	July 4, 1871
122,157	Cobb, Elisha T., Conway, Mass. Flower-stand	Dec. 23, 1871
119,822	Cobb, Judd M., Beloit, Wis. Manufacture of straw-board for the construction of buildings	Oct. 10, 1871
113,631	Cobb, Zenas, Chicago, Ill. Spring for seats, &c. (Reissue)	April 11, 1871
115,167	Coburn, Joseph W., East Walpole, Mass. Tanning-rat	May 23, 1871
116,559	Coburn, Joseph W., East Walpole, Mass., and Elisha F. Winslow, South Dedham, Mass. Tanning-apparatus	July 4, 1871
121,755	Coby, E. Parke, et al. (See Farrington, John A., assignor.)	Oct. 10, 1871
116,809	Cochran, Alexander, Athens, Ohio. Machine for splitting and skiving leather ..	April 11, 1871
113,263	Cochran, David M., and Lindley A. Hawkins, Richmond, Ind. Gate	May 23, 1871
110,826	Cochran, Frederick G., Saint Louis, Mo. Revolving fire-arm	July 4, 1871
119,823	Cochran, Hugh M., et al. (See Power, Benjamin F., assignor.)	Dec. 19, 1871
120,625	Cochran, John, jr., Auburn, Me. Paper-file	July 11, 1871
116,558	Cochran, John C., Ripley, Ohio. Sewing-machine table	April 4, 1871
110,827	Cochran, John S., New York, N. Y. Warehouse-truck	Jan. 10, 1871
116,414	Cochran, John W., New York, N. Y. Insulated bolt for railway-rails	Oct. 10, 1871
118,199	Same. Railway car spring	Nov. 7, 1871
119,122	Cochran, J. W., assignor through mesne assignments to Union Metallic Cartridge Company, New York, N. Y. Metallic cartridge	July 4, 1871
115,707	Cochran, Samuel D. (See Runnstetler, Andrew, assignor.)	Jan. 10, 1871
113,143	Cochrane, Charles, England, Smelting iron-ores	Mar. 16, 1871
4,253	Cochrane, Charles, et al. (See Siemens, Cowper, & Cochrane.)	June 27, 1871
120,244	Cochrane, James, New York, N. Y. Mariners' sound-indicator	Aug. 22, 1871
115,575	Same. Fluid-meter	Sept. 19, 1871
119,323	Cochrane, John, Wall Township, N. J. Screw-propeller	June 6, 1871
114,529	Cochrane, Thomas M. (See Lewitt, William H., assignor.)	Mar. 23, 1871
116,270	Cock, George E., and John H. Guest, New York, N. Y. Electro-magnetic burglar-alarm	Feb. 7, 1871
121,756	Cockill, Ezra, Llewellyn, Pa. Car-dumping apparatus	Oct. 24, 1871
121,757	Cockrill, William A., assignor to self and Charles H. Durban, Zanesville, Ohio. Grain cleaner and separator	June 6, 1871
113,743	Cocks, George B., Cincinnati, Ohio. Marine-propeller. (Antedated March 24, 1871)	Mar. 23, 1871
114,505	Codding, Abiel, jr., North Attleborough, Mass. Manufacture of enameled brace-ets	Feb. 7, 1871
122,108	Codding, James H., assignor to Dighton Furnace Company, Taunton, Mass. Cooking-stove	Oct. 24, 1871
120,494	Codding, Benjamin, La Fayette, Ind. Tinner's swage	June 6, 1871
115,822	Codington, Ayres, Bound Brook, N. J. Lightning-rod connection	Sept. 26, 1871
119,969	Cody, Joseph A., Cleveland, Ohio. Car brake and starter	May 9, 1871
4,453	Coe, Daniel S., assignor to self, R. E. Holmes, and Philip E. Chapin, Pine Meadow, Conn. Bolt-machine	June 27, 1871
111,108	Coe, James A. (See Dean, Charles A., assignor.)	Dec. 12, 1871
115,576	Coe, Marion N., Madison Parish, La. Device for making bale-ties	Dec. 12, 1871
110,631	Coeller, Frederick, New Haven, Conn. Shoe-fastening	April 18, 1871
120,245	Coes, Anny G., Worcester, Mass. Mode of forming the heads of wrench-bars ..	May 2, 1871
112,018	Same. Wrench	Dec. 26, 1871
113,144	Same. same	Oct. 31, 1871
120,245	Same. (See Richard, Albert C., assignor)	June 13, 1871
112,018	Coes, John H. (See Taft, George C., assignor)	Oct. 17, 1871
113,144	Coffin, Charles W., Pittsburgh, Pa. Coal-box	July 4, 1871
120,245	Coffin, David N. B., jr., Newton, Mass. Sash-holder	Jan. 24, 1871
112,018	Same. Traveler for vessels	June 6, 1871
113,144	Coffin, David N. B., jr., assignor through mesne assignments to self and Benjamin Woodward, Newton Centre, Mass. Capstan and windlass (Reissue) ..	Jan. 24, 1871
120,245	Coffin, Edward W., and Charles F. A. Simonin. (See Simonin & Coffin) (Reissue.) ..	June 6, 1871
112,018	Coffin, Francis E., Boston, Mass. Parlor-bedstead	Jan. 24, 1871
113,144	Coffin, George A., Cincinnati, Ohio. Parlor-game. (Antedated May 27, 1871) ..	June 6, 1871
120,245	Coffin, John E., assignor to Frederick W. Bailey and James Noyes, Portland, Me. Paper-cutting machine	Jan. 3, 1871
112,018	Coffin, John E., et al. (See Morrill, Coffin & Hall)	Oct. 24, 1871
113,144	Coffin, John George, assignor to Sensitized Paper Company, Portsmouth, Ohio. Photographic-printing frame	Feb. 21, 1871
120,245	Coffin, Nathan T., Knightstown, Ind. Pump	Mar. 28, 1871
112,018	Same. same	Dec. 13, 1871
113,144	Coggeshall, William, and Bennett B. Warner, Massillon, Ohio. Seeding-machine	Dec. 13, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,577	Cogswell, William A., assignor to Junius Judson, Rochester, N. Y. Governor-valve for steam-engines	June 6, 1871
118,200	Same..... Machine for milling heads of governor-valves.....	Aug. 22, 1871
113,981	Cohen, David L., Pensacola, Fla. Boat-detaching apparatus.....	April 25, 1871
	Cohen, Jacob. (See Joyce, Thomas H., assignor.)	
119,123	Cohen, McDuff, and Robert M. Edwards, Charleston, S. C. Machine for double-seaming tin-ware.....	Sept. 19, 1871
112,688	Cohen, Robert Livingston, assignor to self and William L. Lance, Philadelphia, Pa. Rotating-cylinder engine	Mar. 14, 1871
121,993	Cohn, Louis, Montreal, Canada. Paper-file	Dec. 19, 1871
114,926	Colborn, George W., Gardiner, Me. Method of attaching saws to their arbors	May 16, 1871
111,516	Colborne, Levi H., and David H. Lowe, New York, N. Y. Broiler.....	Feb. 7, 1871
	Colburn, George W. (See Webber, Elbridge, assignor.)	
	Colburn, Henry J., and James Goodrich. (See Goodrich & Colburn.) (Two cases.)	
117,604	Colby, Asa F., Bath, Me. Hemmer for sewing-machines	Aug. 1, 1871
118,436	Colby, Calvin M., assignor to self, T. A. Chase, William Standlick, Alvin H. Little, A. W. Paine, O. W. Brown, Ransom Darling, R. H. Childs, Benjamin Willis, E. S. Carpenter, and Richard Robil, Corinth, Vt. Car-coupling	Aug. 29, 1871
	Colby, George A. (See Baker, Elias, assignor.)	
	Colby, William, <i>et al.</i> (See Hoe, Richard M., assignor) (Reissue.)	
113,632	Colcord, Otis B., Greenville, Ill. Harvester-rake	April 11, 1871
114,530	Cole, Aaron H., deceased, by Lydia B. and Miner T. Cole, administrators, Adrian, Mich. Trace-buckle	May 9, 1871
118,910	Cole, Albert W., Mount Killingly, Conn. Yard-beams for looms	Sept. 12, 1871
112,323	Cole, Alexander, Manamuskin, N. J. Spring bed-bottom	Mar. 7, 1871
115,708	Cole, Andrew Norton, assignor to self and Herbert C. Jones, Brockville, Canada. Separating oil from cotton-waste	June 6, 1871
115,578	Cole, Ashley D., Toronto, Canada. Water-wheel	June 6, 1871
116,810	Cole, Benjamin R., Buffalo, N. Y. Vent-bung	July 11, 1871
110,957	Cole, Calvin, assignor to Moses Gilmor, Dayton, Ohio. Gate-latch	Jan. 17, 1871
	Cole, Charles H. (See Pilkington, Joseph W., assignor.)	
112,551	Cole, Charlie B., Chester, Ill. Keying wheels to shafts	Mar. 14, 1871
121,758	Cole, Elisha B., Huntington, Mass. Basket	Dec. 12, 1871
120,495	Cole, Frederick W., Philadelphia, Pa. Wagon	Oct. 31, 1871
117,151	Cole, George P., assignor to Clemons Hathaway, Hudson, Mich. Collar-pad	July 18, 1871
116,560	Cole, Gideon W., Canton, Ill. Swing	July 4, 1871
4,349	Cole, Henrietta H., New York, N. Y. Piston-packing	April 25, 1871
	Cole, Isaac. (See Eley, Philip, assignor.)	
121,157	Cole, John, Fredericksburgh, Iowa. Land-roller.....	Nov. 21, 1871
116,931	Cole, Jonah R., assignor to self, Thomas G. Brown, and Charles Herring, New York, N. Y. Machine for seaming cylindrical tin boxes	July 11, 1871
	Cole, Nathan H., and Ephraim McDonald. (See McDonald & Cole.)	
116,026	Cole, Seth L., Brooklyn, N. Y. Cigar-machine	June 20, 1871
	Cole, Seth L., and William G. Ayres. (See Ayres & Cole.)	
	Cole, William H. (See Corbus, James L., assignor.)	
111,612	Coleman, Charles C., San Francisco, Cal. Apparatus for cleaning sulphurets and other ores	Feb. 7, 1871
112,324	Coleman, Edward E., West Cummington, Mass. Water-wheel	Mar. 7, 1871
111,613	Coleman, Ezra, San Francisco, Cal. Boot-jack	Feb. 7, 1871
119,575	Coleman, George S., Alexandria, Va. Butter-worker.....	Oct. 3, 1871
120,369	Coleman, Isaac, New York, N. Y. Manufacture of artificial stone	Oct. 31, 1871
	Coleman, James O., and Charles A. Thompson. (See Thompson & Coleman.)	
	Coleman, Rahm & Co. (See Wilson, John T., assignor.)	
	Coles, Isaac U., <i>et al.</i> (See Farrington, John A., assignor.)	
110,740	Coles, Jacob L., Newark, N. J. Binder for sewing-machines	Jan. 3, 1871
117,867	Same..... Machine for sewing hat-tips to linings	Aug. 8, 1871
112,019	Coles, Jacob L., assignor to self and James W. Corey, Newark, N. J. Binder for sewing-machines	Feb. 21, 1871
112,223	Same..... Binder for sewing-machines	Feb. 28, 1871
113,264	Coles, William C., Williamsburgh, N. Y. Bolt	April 4, 1871
	Coll, Hugh. (See Merriman, Edward, assignor.)	
	Collamore, Charles L., and William H. S. Lawrence. (See Lawrence & Collamore.)	
114,410	Collender, Hugh W., New York, N. Y. Billiard-table cushion	May 2, 1871
4,973	Same..... Billiard-table	June 6, 1871
4,985	Same..... Portable stand for a billiard-marker	June 13, 1871
116,159	Same..... Pool-board	June 20, 1871
116,561	Same..... Pool-ball rack	July 4, 1871
	Same..... Billiard-table cushion	Dec. 2, 1871
	Collett, Job, <i>et al.</i> (See Close, Walter R., assignor.)	
4,275	Colley, William H., deceased, by James Seymour, administrator, and William H. Coolidge and Charles Stinson, assignees of William H. Colley, Leavenworth, Kans. Bed-lounge	Feb. 21, 1871
119,919	Collier, Charles, Selma, Ala. Hydraulic main of gas-works	Oct. 17, 1871
4,350	Collier, Orrin, Sacramento, Cal. Piston-packing	April 25, 1871
118,201	Collier, Orrin, assignor to R. M. Fankhouser, Sacramento, Cal. Shield for boots and shoes	Aug. 22, 1871
117,985	Collier, Ralph, Laurel, Md. Composition-roll for dressing-frames	Aug. 15, 1871
119,742	Collier, Thomas, New York, N. Y. Device for raising sunken vessels	Oct. 10, 1871
111,319	Collier, William F., Worcester, Mass. Corn-popper	Jan. 31, 1871

Alphabetical list of patentees for the year 1861—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,933	Collier, William F., Worcester, Mass. Wheel for animal-traps.	June 13, 1871
116,271	Collignon, Nicholas, Claudius O., and Adam, Closter, N. J. Extension-chair	June 27, 1871
116,811	Same.....Folding-chair.....	July 11, 1871
	Collings, Kearnes, and William Knowland. (See Knowland & Collings.)	
	Collins & McLeester. (See McLeester, Alexander, assignor).....(Design.)	
112,787	Collins, Alfred Q., Cambridge, Mass. Blotting-pad	Mar. 21, 1871
116,272	Collins, Andrew, and John Hardy; said Hardy assignor to said Collins, Galesburgh, Ill. Locomotive head-light.....	June 27, 1871
	Collins Company. (See Chapman, Luke, assignor.).....(Two cases.)	
117,259	Collins, Cornelious, Jonesborough, Ind. Sawing-machine	July 25, 1871
121,085	Collins, Daniel, Zanesfield, Ohio. Fanning-mill	Nov. 21, 1871
121,489	Collins, Dennis B., Richmond, Va. Earth-closet	Dec. 5, 1871
118,691	Collins, Edward, New York, N. Y. Device for lubricating car-axle journals	Sept. 5, 1871
121,591	Collins, Edwin S., Trenton, Tenn. Cotton and hay press	Dec. 5, 1871
122,158	Collins, George E. and W. C., Bucksport, Me. Picture-frame, &c. (Antedated Dec. 21, 1871).....	Dec. 26, 1871
121,086	Collins, George L., Trenton, N. J. Dump-cart	Nov. 21, 1871
115,709	Collins, George T., North Eastham, Mass. Carriers' slicker	June 6, 1871
117,745	Collins, James, Crawfordsville, Ind. Wheel-pit for spoking carriage-wheels	Aug. 8, 1871
110,898	Collins, John F., New York, N. Y. Ventilator or blower	Jan. 10, 1871
117,516	Collins, John F., Lodi, Miss. Horse-power	Aug. 1, 1871
119,077	Collins, John E., Albany, N. Y. Separating wool from rags	Sept. 19, 1871
120,626	Collins, John K., Hartford, Vt. Hay-tedder	Nov. 7, 1871
114,765	Collins, Laroe M., Lebanon, N. H. Machine for mortising blind-stiles	May 16, 1871
113,982	Collins, Michael H., Chelsea, Mass. Lamp-shade	April 25, 1871
114,766	Same.....same	May 16, 1871
117,260	Same.....same	July 25, 1871
119,222	Same.....Machine for forming glass chimneys for lamps	Sept. 26, 1871
113,856	Collins, Morris, Decatur, Ill. Thimble skeins and boxings	April 18, 1871
4,537	Collins, Samuel W., assignor to the Collius Company, Collinsville, Conn. Casting edge and other tools.....(Division A, reissue)	Aug. 29, 1871
4,538	Same.....Casting edge and other tools.....(Division B, reissue)	Aug. 29, 1871
	Collins, Simon. (See Helwig, Arthur, assignor.)	
120,857	Collins, Stephen C., Oregon, Mo. Apple-corer	Nov. 14, 1871
120,858	Collins, Tandy S., and Hiram Senseman, Tremont, Ohio. Bee-hive	Nov. 14, 1871
110,999	Collins, Thomas C., Little Hockhocking, Ohio. Fence	Jan. 10, 1871
116,562	Collins, Willard C., Bucksport, Me. Medicated voltaic plaster	July 4, 1871
119,324	Collins, William H., Boston, Mass. Machine for shaving ice	Sept. 26, 1871
116,812	Collinson, Henry, assignor to self and Nathan W. Hazen, Boston, Mass. Grate-bar	July 11, 1871
114,927	Collis, Samuel C., Philadelphia, Pa. Metallic sign	May 16, 1871
118,437	Collom, Charles Frederick, England. Apparatus for dressing ores	Aug. 29, 1871
122,125	Colston, Theodore, assignor to self and Charles E. Billings, Hartford, Conn. Shuttle for sewing-machines	Feb. 23, 1871
122,226	Colton, Franklin B., Philadelphia, Pa. Dumping-car	Dec. 26, 1871
122,227	Same.....Dumping-bucke	Dec. 26, 1871
	Same.....(See Weston, Thomas Aldridge, assignor.)	
117,152	Colton, George A., and Sylvester P. Babcock, Adrian, Mich. Cording-attachment for sewing-machines	July 18, 1871
118,109	Same.....Attachment for sewing-machines	Aug. 15, 1871
118,110	Same.....same	Aug. 15, 1871
118,111	Same.....Binder for sewing-machines	Aug. 15, 1871
116,415	Coltrae, Thomas, Cedar Township, Iowa. Kitchen-safe	June 27, 1871
	Colt's Patent Fire-Arms Manufacturing Company. (See Leaycroft, Edwin S., assignor).....(Two cases.)	
	Same.....(See Richards, Charles B., assignor).....(Two cases.)	
	Same.....(See Kinne, George O., assignor.)	
116,813	Colvin, Leighton O., Newark, N. J. Baby-walker, hanging-chair, &c.	July 11, 1871
120,717	Colvin, Margaret P., Battle Creek, Mich. Washing-machine	Nov. 7, 1871
115,026	Colvin, Robert J., Lancaster, Pa. Combined harrow, roller, and seed-planter	May 23, 1871
	Combination Rubber Company. (See Greacen & Perry, assignors.)	
	Same.....(See Perry, Edward L., assignor.)	
121,337	Combs, Abel, Burlingame, Kans. Watch-escapement	Nov. 23, 1871
	Combs, Robert J., and James Michales, jr. (See Michales & Combs.)	
	Combs, Thomas H. (See Pettit, Thomas J., assignor.)	
	Comey, Willard, et al. (See Switzer, John J., assignor.)	
110,632	Comins, Charles S., Lowell, Mass. Bedstead-fastening	Jan. 3, 1871
122,228	Comins, John M., assignor to self and Austin G. Kimball, Boscawen, N. H. Head-block	Dec. 26, 1871
122,109	Comly, James. Horse hay-rake	Dec. 26, 1871
116,273	Common, Andrew Ainslie, England. Automatic apparatus for opening and closing valves by the effect of temperature	June 27, 1871
	Compton, Edward S., et al. (See Knight, Ebenezer, assignor.)	
121,592	Comstock, Abner M., assignor to Agnes A. Comstock, Galesburgh, Ill. Cherry-stoner	Dec. 5, 1871
118,342	Comstock, John A., Bowling Green, Mo. Combined planter and roller	Aug. 22, 1871
	Conant, C. P. (See Langley, Thomas J., assignor.)	
	Conant, John, et al. (See Stevens, Benjamin D., assignor.)	
113,018	Conaty, James B., and Milton Catt, Indianapolis, Ind. Corn-planter	Mar. 28, 1871
112,420	Condé, Charles A., Indianapolis, Ind. Steam-engine governor	Mar. 7, 1871
111,320	Condra, Isaac N., Genoa, Iowa. Horse hay-rake	Jan. 31, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,684	Cone, John L., assignor to self and Henry Churchill, Waterloo, N. Y. Package for butter and lard.....	July 4, 1871
119,824	Cone, Jonathan, Bristol, Pa. Feed-pipe of steam-boilers.....	Oct. 10, 1871
	Cone, Salmon F., and George E. Dowling. (See Dowling & Cone.)	
	Coney, Justus, <i>et al.</i> (See Thompson, James M., assignor.)	
118,845	Congdon, James W., assignor to F. A. Wheeler, Marietta, Ohio. Broom-tying machine.....	Sept. 12, 1871
115,168	Congdon, Joseph H., assignor to self and Benjamin C. Allen, Coventry, R. I. Chimney-collar.....	May 23, 1871
118,343	Conger, Walter M., Newark, N. J. Dust-pan.....	Aug. 22, 1871
117,153	Conkle, James M., Beaver Falls, Pa. Rotary engine.....	July 18, 1871
111,727	Conley, Aaron W., Economy, Ind. Drain-tile.....	Feb. 14, 1871
112,552	Conley, James H., Philadelphia, Pa. Ladder.....	Mar. 14, 1871
114,767	Conley, John H., Moingona, Iowa. Cultivator.....	May 16, 1871
111,728	Connell, James M., Newark, Ohio. Sash-balance.....	Feb. 14, 1871
117,517	Connell, James M., assignor to self and William Sturgeon, Newark, Ohio. Nut-lock.....	Aug. 1, 1871
	Connell, Adrian M., <i>et al.</i> (See Phillips, George B., assignor.)	
112,903	Connell, John P., Kensington, Conn. Door-bell.....	Mar. 21, 1871
115,027	Connolly, Joseph H., Wheeling, W. Va. Apparatus for heating and lighting locomotives and railroad-cars by gas.....	May 23, 1871
115,028	Connolly, Joseph H., and John McLure. Apparatus for the manufacture of gas for heating and illuminating.....	May 23, 1871
113,265	Conner, Champ C., Ripley, Tenn. Cotton-press.....	April 4, 1871
112,553	Conner, E. A., Metropolis, Ill. Wood-bending machine.....	Mar. 14, 1871
115,934	Conner, James M., Brooklyn, N. Y. Machine for ornamenting printers' rules.....	June 13, 1871
113,019	Conner, Lee W. and Richard G., Troy, Iowa. Cultivator.....	Mar. 28, 1871
	Conner, Orlando P., <i>et al.</i> (See Wentz, Green & Conner.)	
118,792	Connor, William J., Benton, Ill. Wheel-plow.....	Sept. 12, 1871
	Conradson, Eugene G., and August W. Almqvist. (See Almqvist & Conradson.)	
115,436	Constable, David A., and John F. Riggs; said Riggs assignor to said Constable, Saint Joseph, Mo. Sewing-machine motor.....	May 30, 1871
116,274	Constant, Silas, Peekskill, N. Y., and John Smith, Brooklyn, N. Y. Preserving and seasoning wood.....	June 27, 1871
	Convers, Eugene, and John Long. (See Long & Convers.)	
	Converse, Chester W. (See Setchell & Taylor, assignors.)	
115,169	Converse, Elisha S., Boston, Mass. Shoe.....	May 23, 1871
119,325	Converse, Lewis H., and James K. Welter, assignors to Lewis H. Converse, Springfield, Ill. Seed-dropper.....	Sept. 26, 1871
	Converse, Lyman P., and William A. Wells. (See Wells & Converse.)	
4,986	Converse, Paschal, New Haven, Conn. Clock-case..... (Design).....	June 13, 1871
115,437	Covey, John Graham, Saint John, N. B. Steam cooking apparatus.....	May 30, 1871
119,743	Coogan, Owen, Pittsfield, Mass. Machine for boarding, pebbling, and glossing leather.....	Oct. 10, 1871
119,744	Same..... Propulsion of canal-boats.....	Oct. 10, 1871
120,246	Same..... Bark-mill.....	Oct. 24, 1871
121,850	Cook, Albert A., Milford, Mass. Dividers.....	Dec. 12, 1871
115,823	Cook, Anson G., Burlington, Vt. Cupola furnace.....	June 13, 1871
	Cook, Arlon M., Chicago, Ill. Corn-sheller..... (Extension).....	Sept. 28, 1871
113,399	Cook, Daniel M., Mansfield, Ohio. Electric batteries for telegraphing and other purposes.....	April 4, 1871
119,825	Same..... Induction-coil.....	Oct. 10, 1871
112,126	Cook, Daniel P., Hartford, Conn. Lap-board.....	Feb. 28, 1871
	Cook, David C. (See Darby, Daniel H., assignor.)	
114,768	Cook, George, Napier, Canada. Scroll-sawing machine.....	May 16, 1871
112,689	Cook, George W., Geneseo, Ill., and Francis M. Duncan, Aledo, Ill. Cutting-apparatus for harvesters.....	Mar. 14, 1871
117,605	Cook, Harry D., Normal, Ill. Metallic roofing.....	Aug. 1, 1871
114,266	Cook, Isaac, and John T. Bever, Haynesville, Mo. Hoe.....	May 2, 1871
	Cook, Jacob F. (See Baker, William C., assignor.)	
121,087	Cook, Joel S., West Groton, Mass. Baling-press.....	Nov. 21, 1871
120,627	Cook, John, assignor of one-half interest to G. L. Smith, New York, N. Y. Vapor-burner.....	Nov. 7, 1871
4,615	Cook, John M., Marion, Ind. Plow-clevis..... (Design).....	Jan. 31, 1871
120,859	Cook, Justus, Wellsville, N. Y. Evaporating-apparatus.....	Nov. 14, 1871
110,633	Cook, Leonard, Shreveport, La. Fastening for eaves-troughs.....	Jan. 3, 1871
	Cook, Leonard, and John J. Currier. (See Currier & Cook.)	
112,554	Cook, Lyman A., Woonsocket, R. I. Machine for feeding rivets and inserting them in shoes, &c.....	Mar. 14, 1871
	Same..... (See Sheffield, George V., assignor.)	
	Cook, Peter, Tonawanda, N. Y. Machine for cutting veneers..... (Extension).....	Feb. 2, 1871
119,448	Cook, Richard, New Hartford, N. Y. Stopping-mechanism for knitting-machines.....	Oct. 3, 1871
119,449	Cook, Richard, and Thomas Hanford, New Hartford, N. Y. Cap-shearing block.....	Oct. 3, 1871
117,868	Cook, Sydney P. and Hiram D., San Francisco, Cal. Journal-bearing.....	Aug. 8, 1871
114,411	Cook, Thomas, New York, N. Y. Liquid-meter.....	May 2, 1871
114,267	Cook, Thomas, and John Watson, assignors to Fluid-Meter Company, England. Meter.....	May 2, 1871
5,017	Cook, Thomas K., assignor to self and Edward H. Hotchkiss, New York, N. Y. Pipe-wrench..... (Design).....	June 20, 1871
121,158	Cooke, Charles L., Shortsville, N. Y. Railway-switch.....	Nov. 21, 1871
4,779	Cooke, Edward L., and Jabez H. Whitmore, Hartford, Conn. Burial-casket. (Design).....	April 11, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,450 4,344	Cooke, Jacob, Muncy, Pa. Brick-machine	Dec. 5, 1871
4,605	Cooke, James C., assignor to Albert F. Allen, Bridgeport, Conn. Hose-coupling. (Reissue)	April 18, 1871
	Cooke, James C., assignor of one-half interest to Albert F. Allen, Bridgeport, Conn. Hose-coupling	Oct. 24, 1871
	Cooke, James C., and Albert D. Laws. (See Laws & Cooke.)	
119,013	Cooke, John, Paterson, N. J. Locomotive	Sept. 19, 1871
	Same. (See Doyle, Francis P., assignor.)	
111,817	Cooke, John A. (See Waterbury, William M., assignor.)	
	Cooke, Joseph C., and Henry A. Whiteley, Preston, Conn. Machine for the manufacture of moldings	Feb. 14, 1871
121,708	Cookson, John C., Lancaster, Pa. Flour-bolting machine	Dec. 12, 1871
117,051	Cool, Keyes P., Glen's Falls, N. Y. Propulsion of vessels	July 18, 1871
	Cooledge, O. B., et al. (See Hodges, Samuel H., assignor.)	
	Cooley, Anthony, deceased, by Ann M. Cooley, administratrix, Ceresco, Mich. Whiffletree-hook	June 16, 1871
	Cooley, Eli P. (See Martin, Robert Y., assignor.)	
114,646	Same. New York, N. Y. Whisk-broom	May 9, 1871
	Cooley, Elihu. (See Beebe, Calvin T., assignor.)	
	Cooley, James D., and William C. Thornton. (See Thornton & Cooley.)	
4,520	Cooley, Pindar F., Pittsfield, Mass. Whip-hanger	Aug. 22, 1871
120,718	Cooley, Solon, Clarkston, Mich. Plow	Nov. 7, 1871
115,231	Cooley, William and Henry, Toronto, Canada. Machine for bending sheet-metal	May 30, 1871
120,416	Coolidge, John B., Boston, Mass. Gas-regulator. (Antedated Oct. 14, 1871)	Oct. 31, 1871
	Coolidge, William H., et al. (See Colley, William H., assignor.)	
	Coombs, Frederick H., et al. (See Close, Walter R., assignor.)	
121,276	Coombs, Moses, jr., Youngstown, Ohio. Stand-pipe of gas-retorts	Nov. 23, 1871
114,531	Cooney, Clark, Columbus, Nebr. Potato-digger	May 9, 1871
116,563	Coons, Matthias P., assignor to self, Philip Dater, and Charles N. Ayres, Brooklyn, N. Y. Carbureter for gas and air	July 4, 1871
120,040	Coons, Robert J., Greensburgh, Pa. Printing-press	Oct. 17, 1871
119,014	Cooper, Almond F., San Francisco, Cal. Driving-wheel of locomotive-engines	Sept. 19, 1871
114,412	Cooper, Arthur, England. Ventilating-roller window-blinds	May 2, 1871
118,344	Cooper, Edward A., assignor to self and Josiah Letchworth, Lancaster, N. Y. Trace-carrier for harness	Aug. 22, 1871
111,109	Cooper, Eustace J., Mineral Point, Wis. Sleigh-brake	Jan. 24, 1871
114,647	Cooper, George A., and Consider Southworth. Stoughton, Mass. Tassel-head	May 9, 1871
119,576	Cooper, John H., Philadelphia, Pa. Mechanical movement	Oct. 3, 1871
118,692	Cooper, John M., Pittsburgh, Pa. Steam-engine	Sept. 5, 1871
111,321	Cooper, Royal, Georgetown, D. C. Bath and washstand	Jan. 31, 1871
5,135	Cooper, Simon P., Cincinnati, Ohio. Hand-stamp	July 25, 1871
116,564	Cooper, William, jr., Mexico, N. Y. Show-case and counter	July 4, 1871
4,780	Cooper, William Samuel, assignor to Cooper, Jones, and Cadbury, Philadelphia, Pa. Handle for stop-cocks	April 11, 1871
117,606	Same. Supply and waste cock	Aug. 1, 1871
	Cope, Ezra, and James R. Maxwell. (See Maxwell & Cope)	
115,029	Copeland, David, jr., Rochester, N. Y. Cement-pipe mold	May 23, 1871
115,030	Same. Machine for molding drain and sewer pipes	May 23, 1871
	Copestake, Sampson George Goodall, and Henry Dubs. (See Dubs & Copestake.)	
115,824	Copp, Benjamin F., West Cumberland, Me. Wheel-borer and key-way cutter	June 13, 1871
119,826	Copock, John F., Dexter, Iowa. Animal-trap	Oct. 10, 1871
115,170	Copps, Ferdinand L., Atlanta, Ill. Washing-machine	May 23, 1871
117,986	Copson, Robert E., Hamburg, Iowa. Broom	Aug. 15, 1871
110,828	Corbin, Daniel L., Friendship, N. Y. Rubber-pad for horseshoes	Jan. 10, 1871
117,261	Corbin, James M., Liberty, Mo. Stove-leg	July 25, 1871
	Corbin, P. and F. (See Spring, John M., assignor.)	
	Same. (See Munger, William T., assignor.)	
	Same. (See Arnold, Stephen D., assignor.)	
	Same. (See Munger, Wallace, assignor.)	
116,160	Corbus, James L., assignor to self and William H. Cole, Quincy, Mich. Running-gear for vehicles	June 20, 1871
	Corby, Emmons B. (See Crisp & Dodd, assignors.)	
110,900	Cordley, James, Adrian, Mich. Parlor-organ	Jan. 24, 1871
5,123	Core, William H., New York, N. Y. Show-case	July 18, 1871
118,694	Coreth, Rudolph, New Braunfels, Tex. Wheel-plow	Sept. 5, 1871
111,178	Corey, James W., Newark, N. J. Hat	Feb. 21, 1871
	Same. (See Coles, Jacob L., assignor.)	
116,565	Corgan, Daniel, Sugar Notch, Pa. Tamping-apparatus	July 4, 1871
114,111	Corley, John, near Colefield, Kans. Mechanical movement	April 25, 1871
	Corliss, George H., Providence, R. I. Steam-pumping apparatus. (Disclaimer)	May 27, 1871
	Same. same. (Extension)	June 1, 1871
117,385	Same. Steam-generator	July 25, 1871
117,386	Same. Journal-box	July 25, 1871
	Cornell, Eugene E. (See Brown, George C., assignor.)	
	Cornell, George B., and John Lacey. (See Lacey & Cornell.)	
117,607	Cornell, Harmon W., Owego, N. Y. Corn-sheller	Aug. 1, 1871
118,693	Same. Casting toothed cylinders	Sept. 5, 1871
120,860	Cornell, Henry M., Brighton, Ill. Combination-lever bridle-bit. (Antedated Nov. 11, 1871)	Nov. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,450	Cornell, Horatio, and Andrew H. Marshall, Wilmington, Del. Carriage-curtain strap	Oct. 3, 1871
117,384	Cornell, John B., New York, N. Y. Fire-proof roofing	July 25, 1871
117,746	Cornell, John W., Lawn Ridge, Ill. Corn-stalk cutter	Aug. 8, 1871
117,052	Cornell, Leffert R., Syracuse, N. Y. Apparatus for evaporating brine and other liquids	July 18, 1871
121,994	Same.....Purifying brine for manufacture of salt	Dec. 19, 1871
114,648	Cornell, Richard T., assignor to Edwin L. Bushnell and Robert R. Cornell, Poughkeepsie, N. Y. Spring-mattress	May 9, 1871
117,987	Cornell, Thomas L., and Sturgis Whitlock, assignors to Thomas L. Cornell, Derby, Conn. Scroll-saw	Aug. 15, 1871
115,438	Cornell, William F., Adrian, Mich. Surface-gauge	May 30, 1871
113,857	Cornell, William H., Easton, Pa. Sectional steam-boiler	April 18, 1871
4,677	Same.....same (Reissue)	Dec. 19, 1871
117,988	Cornforth, Joseph T., Kansas City, Mo. Egg and fruit carrier	Aug. 15, 1871
112,224	Corning, Thomas J., San José, Cal. Baling-press	Feb. 28, 1871
120,942	Same.....same	Nov. 14, 1871
119,326	Cornish, John A., Marshfield, Mo. Straw-cutter	Sept. 26, 1871
121,851	Cornish, Theodore O., Woonsocket, R. I. Clamp	Dec. 12, 1871
120,496	Corr, Thomas Jefferson, Bloomington, Ill. Combined flour-chest and cupboard	Oct. 31, 1871
4,421	Corse, Albert C., Troy, N. Y. Base-burning stove (Reissue)	June 13, 1871
	Same.....(See Fagan, Michel G., assignor.)	
114,928	Corse, Albert C., assignor to Eddy, Corse & Co., Troy, N. Y. Base-burning stove	May 16, 1871
120,497	Corse, Augustus P., assignor to Eddy, Corse & Co., Troy, N. Y. Cooking-stove	Oct. 31, 1871
116,685	Corsett, Sherman, and Oliver D. Lowe, Middleville, Mich. Bolting-reel	July 4, 1871
117,387	Corwin, Isaac, Defiance, Ohio. Raft-clip	July 25, 1871
110,741	Cory, David Pitkin, assignor to self and Joseph Crane, jr., Crawford, N. J. Automatic car-coupling	Jan. 3, 1871
115,439	Cory, David P., and Josiah Crane, jr., Crawford, N. J. Adjustable draw-head for railroad cars	May 30, 1871
* 110,742	Cory, William Robert, Springfield, Ill. Harvester	Jan. 3, 1871
119,451	Cossaboom, Ewan, Lenox, Mass. Method of casting plate-glass	Oct. 3, 1871
115,710	Coston, John, Bowden, Ga. Plow	June 6, 1871
115,935	Coston, Martha J., Washington, D. C. Pyrotechnic night-signal	June 13, 1871
120,628	Cote, Louis, Saint Hyacinth, Canada. Apparatus for making boot and shoe soles	Nov. 7, 1871
112,555	Cottingham, William, and John W. Stafford, Troy, Ohio. Heating-stove	Mar. 14, 1871
113,020	Cotton, James B., Dayton, Ohio. Gate	Mar. 28, 1871
114,268	Cottrell, Calvert B., Westerly, R. I. Printing-press	May 2, 1871
120,041	Same.....same	Oct. 17, 1871
121,759	Same.....Piston for printing-presses	Dec. 12, 1871
113,744	Couch, Alfred B., Worcester, Mass. Hanging for revolving shafting	April 18, 1871
120,498	Couch, George, Saint Louis, Mo. Adjustable bolster	Oct. 31, 1871
116,027	Coulon, Frederick, assignor to self, Elias Nashold, and Jacob Martin, Rockford, Ill. Band-knife	June 20, 1871
118,345	Coulston, Thomas P., Philadelphia, Pa. Burglar-alarm	Aug. 22, 1871
	Coulter, Henry. (See Hipwell, Thomas, assignor.)	
122,229	Coulter, William S., Ashley, Pa. Turn-table	Dec. 26, 1871
111,909	Court, John, Memphis, Tenn. Washing-machine	Feb. 21, 1871
121,852	Same.....Sash-holder	Dec. 12, 1871
	Courtney, John A., et al. (See Wilson, John T., assignor.)	
119,577	Cousens, William, Orono, Me. Potato-digger	Oct. 3, 1871
118,202	Contant, John E., Rondout, N. Y. Sled-brake	Aug. 22, 1871
120,719	Conty, Gabriel Felix, France. Clothes-dryer	Nov. 7, 1871
110,829	Conzens, Matthew K., Yonkers, N. Y. Self-acting sewer-basin trap	Jan. 10, 1871
116,161	Covell, Allen Thompson, San Leandro, Cal. Roller-skate	June 20, 1871
121,490	Covell, Edward T., Brooklyn, N. Y. Head for rectangular cans	Dec. 5, 1871
	Coventry, Charles, and Sidney W. Palmer. (See Cronk & Palmer, assignors.) (Reissue.)	
116,686	Covert, D'Estaing, Chicago, Ill. Safe-door	July 4, 1871
116,688	Same.....same	July 4, 1871
115,579	Covert, Enoch, Farmer Village, N. Y. Meat and vegetable cutter	June 6, 1871
	Covert, John P., et al. (See Westlake, William, assignor) (Disclaimer.)	
	Same.....same (Reissue.)	
119,745	Cowan, Edward A., and Erasmus D. Johnson. (See Johnson & Cowan.)	
5,352	Cowardin, Collin M., Gardner's Station, Tenn. Broom-needle	Oct. 10, 1871
5,353	Cowell, Albert, England. Carpet-pattern (Design)	Nov. 7, 1871
5,354	Same.....same (Design)	Nov. 7, 1871
5,355	Same.....same (Design)	Nov. 7, 1871
5,356	Same.....same (Design)	Nov. 7, 1871
5,357	Same.....same (Design)	Nov. 7, 1871
5,358	Same.....same (Design)	Nov. 7, 1871
5,359	Same.....same (Design)	Nov. 7, 1871
4,781	Cowell, Albert, assignor to James Humphries & Sons, England. Carpet-pattern (Design)	April 11, 1871
4,782	Same.....Carpet-pattern (Design)	April 11, 1871
4,783	Same.....same (Design)	April 11, 1871
4,784	Same.....same (Design)	April 11, 1871
4,785	Same.....same (Design)	April 11, 1871
4,786	Same.....same (Design)	April 11, 1871
4,787	Same.....same (Design)	April 11, 1871
5,018	Same.....Carpet (Design)	June 20, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
5,019	Cowell, Albert, assignor to James Humphries & Sons, England. Carpet. (Design).....	June 20, 1871
5,020	Same..... Carpet..... (Design).....	June 20, 1871
5,021	Same..... same..... (Design).....	June 20, 1871
5,175	Same..... Carpet-pattern..... (Design).....	Aug. 8, 1871
110,901	Cowell, Rensselaer A., Cleveland, Ohio. Railway-car platform.....	Jan. 10, 1871
115,580	Same..... Earth-closet..... (Design).....	June 6, 1871
119,827	Cowles, Edwin, Cleveland, Ohio. Paper-cutting machine.....	Oct. 10, 1871
114,413	Cowles, Harley D., and George Stacey, Montreal, Canada. Horseshoe-nail machine.....	May 2, 1871
116,162	Cowles, James M., Burlington, Iowa. Sash-holder.....	June 20, 1871
	Cowper, Edward Alfred, <i>et al.</i> (See Siemens, Cowper & Cochrane.)	
113,400	Cox, Gardner, Pierrepont, N. Y. Water-wheel.....	Jan. 10, 1871
	Cox, Harry, <i>et al.</i> (See Rowland, Charles, assignor.)	
121,593	Cox, Henry S., Franklin, Mich. Thill-coupling.....	Dec. 5, 1871
115,171	Cox, James, Belle Plaine, Iowa. Rotary engine.....	May 23, 1871
118,346	Cox, James Edward, Baltimore, Md. Corpse-preserver.....	Aug. 22, 1871
113,401	Cox, Richard D., and William F., Philadelphia, Pa. Smelting iron and other ores. Cox, Whiteman & Cox. (See Rose & Caley, assignors)..... (Design.)	April 4, 1871
117,989	Coyle, Hugh J., Buffalo, N. Y. Combined cultivator, marker, and coverer.....	Aug. 15, 1871
114,414	Coyne, Edward Richard, Chicago, Ill. Bridge-gate.....	May 2, 1871
119,327	Coyne, John W., Madrid, N. Y. Vise.....	Sept. 26, 1871
110,634	Cozad, Jackson, Corydon, Iowa. Seeding-machine.....	Jan. 3, 1871
114,532	Cozzens, Samuel W., Sheboygan, Wis. Sewing-machine chair.....	May 9, 1871
116,814	Crabill, Joseph R., La Crosse, Ill. Automatic car-brake.....	July 11, 1871
113,633	Crabill, Joseph R., assignor to self and Frank B. Modica, La Crosse, Ill. Connection for railway-cars.....	April 11, 1871
5,258	Crabtree, Benjamin, jr., assignor to John Bromley & Sons, Philadelphia, Pa. Carpet..... (Design.)	Sept. 12, 1871
110,743	Crabtree, John, Cincinnati, Ohio. Boot-jack.....	Jan. 3, 1871
4,917	Crabtree, Jonathan, Philadelphia, Pa. Carpet-pattern..... (Design)	May 23, 1871
4,918	Same..... same..... (Design)	May 23, 1871
4,589	Crabtree, Jonathan, assignor to Leedom, Shaw & Stewart, Philadelphia, Pa. Carpet-pattern..... (Design)	Jan. 24, 1871
4,590	Same..... same..... (Design)	Jan. 24, 1871
4,591	Same..... same..... (Design)	Jan. 24, 1871
4,592	Same..... same..... (Design)	Jan. 24, 1871
4,593	Same..... same..... (Design)	Jan. 24, 1871
4,594	Same..... same..... (Design)	Jan. 24, 1871
4,595	Same..... same..... (Design)	Jan. 24, 1871
4,596	Same..... same..... (Design)	Jan. 24, 1871
4,597	Same..... same..... (Design)	Jan. 24, 1871
4,598	Same..... same..... (Design)	Jan. 24, 1871
4,599	Same..... same..... (Design)	Jan. 24, 1871
4,600	Same..... same..... (Design)	Jan. 24, 1871
4,601	Same..... same..... (Design)	Jan. 24, 1871
4,679	Same..... same..... (Design)	Mar. 21, 1871
4,680	Same..... same..... (Design)	Mar. 21, 1871
4,684	Same..... same..... (Design)	Mar. 21, 1871
4,682	Same..... same..... (Design)	Mar. 21, 1871
4,685	Same..... same..... (Design)	Mar. 21, 1871
5,215	Same..... Carpet..... (Design)	Aug. 9, 1871
5,216	Same..... same..... (Design)	Aug. 9, 1871
5,217	Same..... same..... (Design)	Aug. 9, 1871
5,218	Same..... same..... (Design)	Aug. 9, 1871
5,219	Same..... same..... (Design)	Aug. 9, 1871
5,220	Same..... same..... (Design)	Aug. 9, 1871
5,221	Same..... same..... (Design)	Aug. 9, 1871
5,222	Same..... same..... (Design)	Aug. 9, 1871
5,223	Same..... same..... (Design)	Aug. 9, 1871
4,681	Crabtree, Jonathan, assignor to Horner Brothers, Philadelphia, Pa. Carpet-pattern..... (Design)	Feb. 28, 1871
4,683	Same..... Carpet-pattern..... (Design)	Feb. 28, 1871
120,562	Cracraft, Zadok S., assignor to self and William Stormont, Ottawa, Ill. Feed-mill.....	Oct. 31, 1871
120,042	Craday, Edward E., Sioux City, Iowa. Bitters.....	Oct. 17, 1871
112,421	Craft, John Crew, assignor to self and Antonio Roselle, Baltimore, Md. Carpet-cleaning machine.....	Mar. 7, 1871
120,720	Craft, Samuel D., New York, N. Y. Carriage-wheel.....	Nov. 7, 1871
120,417	Cragg, Joseph, Baltimore, Md. Coffee-pot.....	Oct. 31, 1871
	Craig, Andrew J., and James A., <i>et al.</i> (See Thomas, Craig, Craig & Hathaway.)	
115,711	Craig, David D., Macon, Ga. Horse-power.....	June 6, 1861
	Craig, David D., and Christopher D. Findlay. (See Findlay & Craig.)	
	Craig, I. S., and S. S. Turner. (See Turner & Craig.)	
113,021	Craig, William, and Henry L. Brevoort, Brooklyn, N. Y. Condenser for steam-engines.....	Mar. 28, 1871
118,516	Craik, David, Church Mills, Chateaugay, N. Y. Water-wheel.....	Aug. 29, 1871
116,028	Crakes, Thomas, Mishawaka, Ind. Harness-buckle.....	June 20, 1871
115,936	Cram, Alonzo W., Saint Louis, Mo. Railway-switch signal.....	June 13, 1871
119,124	Same..... Railway-switch stand and lock.....	Sept. 19, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,416	Cram, Alonzo W., and William B. Dunbar, assignors to Alonzo W. Cram, Chicago, Ill. Switch-lock	June 27, 1871
110,902	Cram, John, assignor to self and John S. Cram, Chicago, Ill. Churn	Jan. 10, 1871
115,440	Cramer, Benjamin F., Tyrone, Pa. Feather-renovator	May 30, 1871
110,830	Cramer, Ephraim D., Hackettstown, N. J. Spring-bottom for wagon-bodies	Jan. 10, 1871
	Cramer, James P., Schuylerville, N. Y. Cultivator-teeth	Jan. 5, 1871
111,818	Cramer, Philipp, Providence, R. I. Rotary steam-engine	Feb. 14, 1871
111,614	Crampton, Thomas Russell, England. Apparatus for feeding pulverized fuel to furnaces	Feb. 7, 1871
111,615	Same.....Apparatus for distributing and feeding powdered fuel to furnaces	Feb. 7, 1871
111,616	Same.....Furnace for burning pulverized fuel	Feb. 7, 1871
112,690	Crandall, Edwin G., Belfast, N. Y. Grapple	Mar. 14, 1871
113,402	Crandall, Benjamin P., jr., Williamsburgh, N. Y. Children's carriage or perambulator	April 4, 1871
114,649	Crandall, Cyprian U., Sterling, Ill. School-desk joint	May 9, 1871
114,112	Crandall, Delos V., Chicago, Ill. Bed-spring	April 25, 1871
116,815	Same.....Spring bed-bottom	July 11, 1871
111,322	Crandall, Hosea B., Brockton, N. Y. Gate	Jan. 31, 1871
	Crandall, James C. (See Rogers, John C., assignor.)	
115,825	Crandall, Jesse A., Brooklyn, N. Y. Swing	June 13, 1871
118,695	Same.....Velocipede	Sept. 5, 1871
110,744	Crandall, John C., New York, N. Y. Children's carriage	Jan. 3, 1871
110,745	Crandall, William E., New York, N. Y. Children's carriage	Jan. 3, 1871
4,223	Same.....same.....(Reissue)	Jan. 3, 1871
118,911	Crandell, James H., Upper Marlborough, Md. Wine-press	Sept. 12, 1871
110,746	Crandell, William, Westfield, N. Y. Railway-car seat	Jan. 3, 1871
	Crane, Albert G. (See McMahan, Charles E., assignor.)	
110,831	Crane, Albert O., Boston, Mass. Washing-machine	Jan. 10, 1871
113,266	Same.....Stool or table	April 4, 1871
115,581	Same.....Heel of boots and shoes	June 6, 1871
118,203	Same.....Heel for boots and shoes	Aug. 22, 1871
110,958	Crane, James B., Dalton, Mass. Paper bed-bottom	Jan. 17, 1871
	Crane, Jason. (See Jones, James P., assignor.)	
	Same.....(See Seldis, Raphael M., assignor.)	
	Crane, John E., and Jonathan J. Hoyt. (See Hoyt & Crane.)	
	Crane, John E., et al. (See Melvin, Jerome B., assignor.)	
113,403	Crane, John H., and Charles W., Boston, Mass. Suspending signs, &c.	April 4, 1871
	Crane, John S., and James T. Gilmore. (See Gilmore & Crane.)	
	Crane, Josiah, jr. (See Cory, David Pitkin, assignor.)	
	Crane, Josiah, jr., and David P. Cory. (See Cory & Crane, assignors.)	
	Crane, Moses G., and Joseph W. Stover. (See Stover & Crane.)	
4,513	Crane, Moses G., and Edwin Rogers, assignors through mesne assignments to Gamewell & Co., Boston, Mass. Automatic signal-box for fire-alarm telegraphs	Aug. 15, 1871
118,204	Crane, Seymour, assignor to Samuel W. Hoffman, Dalton, Mass. Mode of preventing and detecting the alteration of bank-checks, &c.	Aug. 22, 1871
117,262	Crane, Thomas, assignor to self and Melvin A. Jones, Fort Atkinson, Wis. Sewing-machine	July 25, 1871
	Cranston, James F., et al. (See Martin, Edwin, assignor.)	
117,388	Crary, John S., Salem, N. Y. Metallic cartridge	July 25, 1871
113,022	Craven, Jesse W., and Albert Clark, Centre Valley, Ind. Grain-drill	Mar. 28, 1871
111,910	Craven, John J., Jersey City, N. J. Treating blood for the manufacture of fertilizers and ammoniacal salts	Feb. 21, 1871
121,760	Craven, Michael, Dedham, Mass. Rest for cloth-shearing machines	Dec. 12, 1871
115,441	Craven, Thomas C., assignor to Barton H. Jenks, Philadelphia, Pa. Cotton-gin saw	May 30, 1871
111,323	Crawford, Andrew, Wilkesbarre, Pa., and Iram Crawford, Bloomington, Ill. Grain, coffee, and rice cleaner	Jan. 31, 1871
113,023	Crawford, Benjamin, Allegheny, Pa. Apparatus for purifying coal-oil	Mar. 28, 1871
115,172	Crawford, John M., Philadelphia, Pa. Stamp-mill	May 23, 1871
112,904	Crawford, Peter S., Union, Ill. Gate	Mar. 21, 1871
117,263	Same.....same.....	July 25, 1871
	Crawford, R. A. (See Wright, Edwin L., assignor.)	
112,788	Creager, Jonathan, Cincinnati, Ohio. Sawing-machine table	Mar. 21, 1871
	Creager, Jonathan P., et al. (See Lawrence, William H., assignor.)	
116,932	Crease, Alexander, Cleveland, Ohio. Vise	July 11, 1871
115,826	Creed, George H., New York, N. Y. Spectacle-clew for sails of vessels	June 13, 1871
117,518	Cregan, Mickail, assignor to self and Andrew Damedion, Chicago, Ill. Battle-door	July 11, 1871
111,433	Crehore, Horace C., assignor to self and Samuel T. Cushing, Boston, Mass. Hot-air distributing-pipe	Jan. 31, 1871
120,573	Creighton, David, Vacaville, Cal. Gate	Nov. 7, 1871
119,452	Creighton, John F., Placerville, Cal. Pruning-shears	Oct. 3, 1871
118,517	Creighton, Samuel, Lithopolis, Ohio. Insect-destroyer	Aug. 29, 1871
111,911	Cremer, Francis, Elmwood, Ill. Plow	Feb. 21, 1871
114,415	Cremin, Joseph W., assignor of half interest to George H. Fairchild, New York, N. Y. Water-meter	May 2, 1871
115,937	Same.....same.....	June 13, 1871
120,418	Same.....Axle for vehicles	Oct. 31, 1871
122,230	Same.....Hollow beam	Dec. 26, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
122,231	Cremin, Joseph W., assignor of half-interest to George H. Fairchild, New York, N. Y. Liquid-meter	Dec. 26, 1871
119,328	Cress, John M. and William L., Taylorsville, Tenn. Water-wheel	Sept. 26, 1871
116,933	Cresson & Smith. (See Smith, Scott A., assignor) (Two cases.)	
	Cresson, Charles M., assignor to Robert P. Dechert, Philadelphia, Pa. Manu- facture of paper-pulp from straw	July 11, 1871
121,338	Creuse, Jules Leon Augustin, Brooklyn, N. Y. Medical compound	Nov. 28, 1871
111,179	Creuzbaur, Robert, Williamsburgh, N. Y. Fluid-meter	Jan. 24, 1871
113,024	Crick, Elias, Phillipsburgh, N. J. Washing-machine	Mar. 28, 1871
113,267	Crihfield, Aylett R., Lincoln, Ill. Camera stand	April 4, 1871
111,819	Criley, John, and Whitney Gilbreath, Rockwood, Ill. Feed-cutter	Feb. 14, 1871
	Crisman, John B., and George C. Taylor. (See Taylor & Crisman.)	
119,970	Crisp, James, and Viner V. Dodd, assignors to selves and Emmons B. Corby, Orange, N. J. Rolling and felting hat-bodies. (Antedated Sept. 30, 1871)	Oct. 17, 1871
113,634	Crispin, Silas, New York, N. Y. Metallic cartridge	April 11, 1871
118,205	Crispin, Thomas, Bay City, Mich. Machine for cutting lath-bolts	Aug. 22, 1871
114,269	Crocker, Hyde, jr., Montrose, Pa. Whiffletree-coupling	May 2, 1871
119,507	Crocker, John D., and Junius A. Brand, Norwich, Conn. Stretcher for pictures	Oct. 3, 1871
119,578	Crocker, Richard, Marshalltown, Iowa. Strap-cutter. (Antedated Sept. 27, 1871)	Oct. 3, 1871
4,654	Crocker, William R., deceased, by Mary F. Crocker, administratrix, West Win- sted, Conn. Machine for manufacturing corks (Reissue)	Dec. 5, 1871
121,159	Crockett, Lucien A., Wythe County, Va. Horse hay-rake	Nov. 21, 1871
119,125	Crockett, Nathaniel, Portland, Me. Washing-machine	Sept. 19, 1871
	Croft, Henry, and John P. Allen. (See Allen & Croft.)	
111,729	Croll, Sylvester, assignor to Samuel J. Phillips, Philadelphia, Pa. Stationary bell-holder	Feb. 14, 1871
111,324	Crompton, George, Worcester, Mass. Harness-operating mechanism for looms	Jan. 31, 1871
111,325	Same..... Carpet	Jan. 31, 1871
120,247	Same..... Hasp-lock	Oct. 24, 1871
5,198	Crompton, George, assignor to Crompton Carpet Company, Worcester, Mass. Carpet..... (Design)	Aug. 15, 1871
5,199	Same..... same..... (Design)	Aug. 15, 1871
	Crompton, George, and Jacob Fisler. (See Fisler & Crompton.)	
	Crompton, Joseph, and Joseph Clough. (See Clough & Crompton.)	
119,508	Cromwell, David, Saint Louis, Mo. Refrigerator	Oct. 3, 1871
	Cronk, George W., et al. (See Antisdell, Cronk & Haviland.)	
4,497	Cronk, Munson C., and Sidney W. Palmer, assignors to Sidney W. Palmer and Charles Coventry, Auburn, N. Y. Washing-machine	Aug. 1, 1871
	Crook, Charles, New Hope, Pa. Harvester	April 20, 1871
	Same..... same..... (Extension)	April 20, 1871
	Same..... same..... (Extension)	April 20, 1871
129,159	Crook, Joseph, Ludlow, Vt. Automatic oiler for looms	Dec. 26, 1871
113,501	Crooke, John J. and Lewis, New York, N. Y. Plated butt-hinge	April 11, 1871
5,070	Crooke, Lewis, New York, N. Y. Shutter-bar	July 4, 1871
119,078	Crookes, Joseph, Saint Louis, Mo. Furnace for heating saws for hardening and tempering	Sept. 19, 1871
110,832	Croom, William W., Montgomery, Ala. Cotton-seed planter and guano-dis- tributer	Jan. 10, 1871
	Croome, William, deceased, by Rosalie Croome, executrix, Brooklyn, N. Y. Method of printing in colors (Extension)	May 3, 1871
119,264	Cropper, John S. (See Thacker, Samuel, assignor.)	
121,491	Crosby, Augustine B., Greene, Me. Amalgamation of gold and silver	Sept. 26, 1871
121,492	Crosby, Chauncey O., Milford, Conn. Construction of packages of pins	Dec. 5, 1871
121,493	Same..... Case for pin-packages	Dec. 5, 1871
4,305	Same..... New Haven, Conn. Machine for sticking pins	Dec. 5, 1871
	Crosby, Chauncey O., and N. A. Baldwin, New Haven, Conn. Sewing-ma- chine (Reissue)	Mar. 21, 1871
111,820	Crosby, Daniel, Hampden, Me. Apparatus for smoothing and pressing paper during the manufacture	Feb. 14, 1871
112,422	Same..... Steam-regulator for paper-driers	Mar. 7, 1871
115,031	Crosby, Francis W., Washington, D. C. Furnace for roasting metallic ores	May 23, 1871
114,416	Crosby, Lewis M., Ashtabula, Ohio. Fanning-mill	May 2, 1871
119,079	Crosby, Mark, Boston, Mass. Parlor-bed	Sept. 19, 1871
116,816	Croselmirre, Charles, assignor to self and Alfred V. C. Genung, Newark, N. J. Joining for watch-chains	July 11, 1871
	Cross, Ransler R., and Francis A. Ramey. (See Ramey & Cross.)	
111,180	Cross, William B., Sacramento, Cal. Variable cut-off for steam-engines	Jan. 24, 1871
117,747	Same..... same..... (Extension)	Aug. 8, 1871
117,264	Crossland, John, Spencer Grove, Iowa. Corn-harvester	July 25, 1871
113,268	Crossley, Harry A., Cleveland, Ohio. Stave-jointer	April 4, 1871
113,025	Crossman, Alonzo G., Huntington, N. Y. Steering-apparatus	Mar. 28, 1871
113,983	Crossman, Alonzo G., assignor to Franklin M. Crossman, Huntington, N. Y. Ap- paratus for reefing sails	April 25, 1871
113,984	Same..... Center-board for vessels	April 25, 1871
115,173	Same..... Center-board	May 23, 1871
115,032	Crossman, Charles P., West Warren, Mass. Medicine for coughs, colds, &c	May 23, 1871
120,419	Crossman, James M., South Orange, N. J., and George S. Rice, Tarrytown, N. Y. Fastener for meeting-rails of sashes	Oct. 31, 1871
119,971	Crossman, Montgomery, and Pratt A. Spicer, Marshall, Mich. Windmill	Oct. 17, 1871
119,972	Same..... same.....	Oct. 17, 1871
	Crotser, William H. (See Allen, Judson, assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,289	Crouch, George, Westport, Conn. Shawl-strap..... (Reissue) ..	Mar. 7, 1871
119,223	Same..... same.....	Sept. 26, 1871
120,499	Crouch, John W., Rushville, Ohio. Gig-saddle.....	Oct. 31, 1871
	Crow, Henry, <i>et al.</i> (See Rich, Crow & Rich.)	
	Crowell, Abner B., and William Bayley. (See Bayley & Crowell.) (Two cases.)	
116,687	Crowell, Calvin, assignor to Daniel D. Smith, Syracuse, N. Y. Shirt-bosom expander.....	July 4, 1871
115,712	Crowell, David, jr., Yarmouth Port, Mass. Hank for sails.....	June 6, 1871
115,713	Same..... Device for hanging looking-glasses and pictures.....	June 6, 1871
116,029	Same..... Knife scourer and sharpener.....	June 20, 1871
118,206	Crowell, Everard S., Augusta, Me. Pump.....	Aug. 22, 1871
111,730	Crowell, Hilen C., Morgan, Ohio. Apparatus for leaching bark, &c.....	Feb. 14, 1871
117,389	Crowell, John H., assignor to John Hendrick, Providence, R. I. Machine for manufacturing loom-harness.....	July 25, 1871
114,929	Crowley, Jeremiah F., Philadelphia, Pa. Loom.....	May 16, 1871
111,517	Crowley, John B., and Addison E. Chamberlain, Cincinnati, Ohio. Cooking-stove.....	Feb. 7, 1871
121,761	Crowson, Valenus W., Westfield, Mass. Covering for whips.....	Dec. 12, 1871
112,423	Cruikshank, George M., Providence, R. I. Metallic piston and valve-rod packing.....	Mar. 7, 1871
113,026	Crull, Jacob M., assignor of one-half interest to George S. Crull, Harrisburgh, Pa. Paper-clip.....	Mar. 28, 1871
113,027	Crunb, Edwin L., South West, Pa. Needle-holder and tension-device for sewing-machines.....	Mar. 28, 1871
120,043	Crump, Samuel, Brooklyn, N. Y. Apparatus for cleaning and preserving printers' rollers.....	Oct. 17, 1871
116,163	Crupper, James E., Berlin, Ky. Blotting-instrument.....	June 20, 1871
120,861	Crutcher, James P., and Thomas Y. Vancleave, Cornersville, Tenn. Rein and shaft support.....	Nov. 14, 1871
116,689	Csapp, George, New York, N. Y. Rocking-chair.....	July 4, 1871
	Cuffell, Joseph N., and William Allebaugh. (See Allebaugh & Cuffell.)	
112,424	Culham, George, Grand Rapids, Mich. Grain thrashing and separating machine. (Antedated Feb. 25, 1871).....	Mar. 7, 1871
120,249	Culp, Elijah, Hilliard, Ohio. Corn harvester and shocker.....	Oct. 24, 1871
111,181	Culp, Godfrey E., and Matthew Flaig, Lock Haven, Pa. Spoke-tenoning machine.....	Jan. 24, 1871
115,033	Culver, David, Kingston, Pa. Cultivator-plow.....	May 23, 1871
111,326	Culver, Frank J., Hartford, Vt. Platform horse-power.....	Jan. 31, 1871
120,500	Culver, Jacob D., assignor to self and Samuel D. Carmichael, Catlin Station, Ind. Sawing-machine.....	Oct. 31, 1871
112,691	Culver, James H., San Francisco, Cal. Molding-machine.....	Mar. 14, 1871
4,788	Culver, John M., assignor to Hall, Elton & Co., Wallingford, Conn. Fork or spoon handle..... (Design) ..	April 11, 1871
120,943	Culver, John P., assignor to the Union Pipe Company, Jersey City, N. J. Core for dikes.....	Nov. 14, 1871
	Culver, Willard B., and Sidney Broadbent. (See Broadbent & Culver.)	
119,746	Culver, William H., West Troy, N. Y. Grinding-mill.....	Oct. 10, 1871
	Cumberland, John, and James R. McClintock. (See McClintock & Cumberland.)	
119,265	Cumberworth, Anthony, and William D. Little, Toronto, Canada. Wrench.....	Sept. 26, 1871
120,248	Cuming, Thomas, jr., Brookhaven, Miss. Plow.....	Oct. 24, 1871
	Cumming, William, and Daniel Fisher. (See Fisher & Cumming.)	
4,574	Cummings, Charles A., and Freeman M. Swallow, assignors through mesne assignments to Metropolitan Washing-Machine Company, Worcester, Mass. Clothes-wringer..... (Reissue) ..	Oct. 3, 1871
119,828	Cummings, Daniel M., assignor to self and Lewis Kimball, jr., Enfield, N. H. Machinery for making wooden trays.....	Oct. 10, 1871
113,028	Cummings, Edwin H., Grimshaw Heyes, and Thomas Entwistle, England. Stop-motion for warping-machines.....	Mar. 28, 1871
116,817	Cummings, Jotham, West Charleston, Vt. Mill-pick.....	July 11, 1871
118,347	Cummings, Patrick H., assignor to self and Edgar Kenyon, Adams, N. Y. Fifth-wheel for vehicles.....	Aug. 22, 1871
121,339	Cummings, William H., Oxford, Mass. Knife-polisher.....	Nov. 28, 1871
117,608	Cummins, Simon A., Vienna, N. J. Plow.....	Aug. 1, 1871
117,869	Cummskey, Michael N., Paterson, N. J. Propulsion of canal-boats.....	Aug. 8, 1871
115,442	Cunningham, James, assignor to Bradley & Hubbard, West Meriden, Conn. Standard for drop-lights.....	May 30, 1871
110,635	Cunningham, Robert W., Chesterville, Ohio. Flour-bolt.....	Jan. 3, 1871
5,424	Cunningham, William B., and Philip Hill, Philadelphia, Pa. Fringe.. (Design) ..	Dec. 19, 1871
5,425	Same..... same..... (Design) ..	Dec. 19, 1871
5,426	Same..... same..... (Design) ..	Dec. 19, 1871
111,434	Cuplin, Samuel, Iowa Falls, Iowa. Bee-hive.....	Jan. 31, 1871
120,944	Same..... same.....	Nov. 14, 1871
121,234	Cuppers, Gustavus, Brooklyn, E. D., N. Y. Illuminating-apparatus. (Antedated Nov. 16, 1871).....	Nov. 28, 1871
	Curl, James H. (See Wilson, Milton M., assignor.)	
	Curl, John, and John Osmun. (See Osmun & Curl.)	
117,870	Curless, William, Truckee, Cal. Medical compound for treating rheumatism, &c.....	Aug. 8, 1871
111,110	Currie, Daniel, Belleville, Ill. Steam lubricator.....	Jan. 24, 1871
	Currie, John, and John Martino. (See Martino & Currie.) (Design.)	
	Currier, Israel J., and Edward N. Porter. (See Porter & Currier.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
122,110	Currier, John J., and Leonard Cook, Gloucester, Mass. Marine-paint.....	Dec. 26, 1871
114,770	Currier, John W., Newbury, Vt. Combined tool.....	May 16, 1871
114,930	Currier, John W., assignor to self and John W. Labaree, Springfield, Mass. Bread-slicer.....	May 16, 1871
120,945	Currier, Thomas D., Waldoborough, Me. Tea and coffee pot stand.....	Nov. 14, 1871
113,404	Cursons, Samuel E., Buffalo, N. Y. Street-sprinkling machine.....	April 4, 1871
120,862	Curtis, Augustin B., and Josiah Pierce. (See Pierce & Curtis.)	
112,425	Curtis, Charles W. Manufacture of gunpowder.....	Nov. 14, 1871
120,044	Curtis, David, assignor to self and C. B. Graham, Mishawaka, Ind. Cooking-stove.....	Mar. 7, 1871
110,833	Curtis, Francis, Brattleborough, Vt. Machine for making machine-screws.....	Oct. 17, 1871
116,690	Curtis, Francis, assignor to David Scrymgeour, Foxborough, Mass. Manufacture of articles from paper-pulp.....	Jan. 10, 1871
120,250	Curtis, George S., Chicago, Ill. Roller-skate.....	July 4, 1871
116,691	Curtis, Harrison W., assignor to Hale, Goodman & Co., Philadelphia, Pa. Wooden mat for picture-frames.....	Oct. 24, 1871
115,174	Curtis, Ira T., and J. Willard Smith, Rochester, N. Y. Preparation of wheat for food.....	July 4, 1871
119,579	Curtis, James, North Palmer, N. Y. Boiler washing-machine.....	May 23, 1871
115,443	Curtis, John, Cincinnati, Ohio. Carriage.....	Oct. 3, 1871
116,417	Curtis, John B. (See Lymonde, Thomas, assignor.)	
115,532	Curtis, John G., Warren, Pa. Machine for rolling leather.....	May 30, 1871
114,417	Curtis, Thaddeus B. (See Penny, Benjamin F., assignor.)	
115,532	Curtis, William B., Chicago, Ill. Rowing-machine.....	June 27, 1871
118,207	Curtiss, Horace H., and Landy T. Lindsey. (See Lindsey & Curtiss.)	
114,117	Curtiss, Jonas P., New Britain, Conn. Screw-driver.....	June 6, 1871
119,119	Curtiss, Thomas E., Titusville, Pa. Corn-harvester.....	Aug. 22, 1871
117,154	Curtiss, Willis, jr., assignor to Elisha Turner, Wolcottville, Conn. Raisin-seeder.....	May 2, 1871
115,444	Curts, James, Ottumwa, Iowa. Water-elevator.....	Sept. 19, 1871
117,053	Cushing, Ambrose M., Cambridge, Mass. Wash-tub.....	July 18, 1871
122,160	Cushing, Mark A., Aurora, Ill. Hot-air furnace.....	May 30, 1871
	Same..... Fire-place.....	July 18, 1871
	Same..... Heating-stove.....	Dec. 26, 1871
	Cushing, Samuel T. (See Crehore, Horace C., assignor.)	
	Cushing, Sewell G., and Luther Southworth, jr. (See Southworth, jr., & Cushing.)	
110,903	Cushman, Austin F., Hartford, Conn. Lathe-chuck.....	Jan. 10, 1871
120,863	Same..... Machinists' lathe-chuck.....	Nov. 14, 1871
121,494	Same..... Chuck for metal-turning lathes.....	Dec. 5, 1871
117,748	Cushman, Henry T., North Bennington, Vt. Pencil.....	Aug. 8, 1871
121,853	Cushman, Joseph, Thomson, Ill. Windmill.....	Dec. 12, 1871
112,426	Cushman, Sylvanus D., New Lisbon, Ohio. Lightning-rod.....	Mar. 7, 1881
112,905	Custer, Cornelius, Norristown, Pa. Carriage-gearing.....	Mar. 21, 1871
118,348	Custer, Isaac D., Davenport, Iowa. Grape-trellis.....	Aug. 22, 1871
112,692	Custer, Henry, Central Village, Conn. Harvester-cutter.....	Mar. 14, 1871
113,858	Cutshall, Jacob, and William Darrah. (See Darrah & Cutshall.)	
116,934	Cutter, John D., Brooklyn, N. Y. Spool-exhibitor.....	April 18, 1871
111,912	Cutter, Richard H., Cleveland, Ohio. Chair for boats.....	July 11, 1871
4,565	Cutting, Lewis, assignor to self and Francis Cutting, San Francisco, Cal. Mandrel for gauging and cutting solder-wire.....	Feb. 21, 1871
	Cutting, Lewis, assignor to Francis Cutting, San Francisco, Cal. Furnace for soldering..... (Reissue).....	Sept. 19, 1871
	Cuyler, Edward J. (See Lewis, James, assignor.)	
112,325	Same..... same.....	
120,721	Cuzner, John B., Bridgeport, Conn. Toy horse and carriage.....	Mar. 7, 1871
116,818	Cziner, Matjas, New York, N. Y. Treating Indian corn with malt extract.....	Nov. 7, 1871
120,946	Daft, Simpson H. (See Spangler, George C., assignor.)	
110,834	Daggett, Henry S., La Fayette, Ind. Electro-magnetic car-brake.....	July 11, 1871
	Dagley, Joseph, Gosport, Ind. Hog-lifting machine.. (Antedated Nov. 1, 1871).....	Nov. 14, 1871
	Dahlen, William, Madison, Ind. Feed-cutter.....	Jan. 10, 1871
112,427	Dalley, Peter, et al. (See Banks, James, assignor.)	
	Daily, Patrick, assignor to self and John J. Kehoe, New York, N. Y. Hose-bridge.....	Mar. 7, 1871
119,015	Dalby, R. M. (See Allen, John P., assignor.)	
112,428	Dale, Thomas, Russellville, Ky. Cotton-cultivator.....	Sept. 19, 1871
120,629	Dale, William, New York, N. Y. Cover for openings in side-walks.....	Mar. 7, 1871
121,995	Same..... Ventilator for hats and caps.....	Nov. 7, 1871
118,208	Same..... same.....	Dec. 19, 1871
119,747	Daley, Lewis, Minaville, N. Y. Cultivator-teeth.....	Aug. 22, 1871
116,164	Dalrymple, Robert, Galt, Canada. Drying-room.....	Oct. 10, 1871
	Daly, Joseph, Troy, N. Y. Folding-table support.....	June 20, 1871
	Dalzell, A. Filson, et al. (See Davis, Joseph, assignor.)	
	Same..... (See Rigby, John, assignor.)	
117,390	Dalzell, David, South Egremont, Mass. Axle-box.....	July 25, 1871
4,594	Same..... same..... (Reissue).....	Oct. 17, 1871
111,518	Dalziel, William, New York, N. Y. Self-closing cock.....	Feb. 7, 1871
113,635	Damant, William Edward, assignor to self and William Hessin, West Hoboken, N. J. Machine for cutting lozenges, &c.....	April 11, 1871
4,389	Damedion, Andrew. (See Cragen, Mickail, assignor.)	
115,445	Damon, George L., Cambridge, Mass. Bolt for safes, &c..... (Reissue).....	May 23, 1871
	Same..... Permutation-lock.....	May 30, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,714	Damon, George L., and Hiram B. Tripp, Boston, Mass. Device for operating safe-doors	June 6, 1871
121,854	Damon, Thomas, Thompsonville, Conn. Apparatus for transmitting and applying power	Dec. 12, 1871
117,990	Damp, John, Ashland, Ohio. Bran-duster	Aug. 15, 1871
	Dane, James F., <i>et al.</i> (See Westlake, William, assignor) (Disclaimer.)	
	Same.....same..... (Reissue.)	
	Danforth, Edward G. (See Brace, James P., assignor.)	
111,821	Danforth, Oliver, Bibb County, Georgia. Dentifrice	Feb. 14, 1871
113,269	Daniels, Aaron M., Hartford, Conn. Chemically prepared lamp-wick	April 4, 1871
113,985	Daniels, Francis L., and John Russell, Boston, Mass. Dust-pan	April 25, 1871
	Daniels, Henry A., and Alfred J. Works. (See Works & Daniels.)	
119,580	Daniels, John F., Foxborough, Mass. Water-wheel	Oct. 3, 1871
111,913	Daniels, Reuben, Woodstock, Vt. Vegetable-crusher	Feb. 21, 1871
115,034	Daniels, Thomas H., Anderson, Ind. Wagon-side brace	May 23, 1871
	Danison, Aaron, and Franklin N. Draper. (See Draper & Danison.)	
122,161	Danks, Melancthon W., assignor to self and J. E. Harroun, Fulton, N. Y. Circular-saw mill	Dec. 26, 1871
116,275	Danks, Samuel, Cincinnati, Ohio. Mechanical firing	June 27, 1871
	Dann, Jesse W. (See Mithoff & Dann.)	
115,583	Dann, John A., and William F., assignors to Dann, Brothers & Co., New Haven, Conn. Wagon-seat	June 6, 1871
114,418	Dapron, Francis E., Davenport, Iowa. Toilet-case	May 2, 1871
115,282	Darby, Daniel H., assignor to self and David C. Cook, Mendon, Ill. Hemmer for sewing-machine	May 30, 1871
120,722	Darby, George W., assignor to self and James Harsha, Cincinnati, Ohio. Ruffling-attachment for sewing-machines	Nov. 7, 1871
114,772	Dare, Samuel G., New York, N. Y. Feeder for wax tapers	May 16, 1871
114,270	Dark, Thomas, Buffalo, N. Y. Receiver and stench-trap for street-sewers	May 2, 1871
114,771	D'Arincourt, Ludovic Charles Adrian Joseph Guyot, France. Electric telegraph	May 16, 1871
117,991	Darling, Daniel S., Brooklyn, N. Y. Paddle-wheel	Aug. 15, 1871
116,566	Darling, George E., and Mathew Heus, Marytown, Wis. Car-coupling	July 4, 1871
	Darling, Ransom, <i>et al.</i> (See Colby, Calvin M., assignor.)	
110,959	Darling, Samuel, Providence, R. I. Pen-cleaner	Jan. 17, 1871
111,435	Same.....Inkstand	Jan. 31, 1871
116,276	Same.....Pencil-sharpener	June 27, 1871
	Same.....Manufacture of metallic squares (Extension)	Sept. 21, 1871
119,509	Darrach, Samuel A., Newburgh, N. Y. Gate. (Antedated Sept. 16, 1871.)	Oct. 3, 1871
121,709	Darrach, William, and Jacob Cutshall, Coshocton, Ohio. Cattle-guard for railways	Dec. 12, 1871
111,436	Darrell, Armistead M., assignor to self, Solon C. Kemon, and Lysander Hill, Washington, D. C. Branding-stamps	Jan. 31, 1871
111,182	Dart, Alfred, Carbondale, Pa. Furnace for burning small coal or culm	Jan. 24, 1871
119,581	Dasenbrock, Charles, Cincinnati, Ohio. Cleaning boiler-flues by steam-jets	Oct. 3, 1871
	Da Silva, José, and Charles Goodyear, jr. (See Goodyear, jr., & Da Silva.)	
	Dater, Philip, <i>et al.</i> (See Coons, Matthias P., assignor.)	
119,582	Daughtrey, Marmaduke F., Portsmouth, Va. Railway-car brake	Oct. 3, 1871
115,446	Davee, Ezra, Marshall, Ill. Process of seasoning wood	May 30, 1871
111,183	Davenport, George L., and Charles G. Case, Davenport, Iowa. Wine-press	Jan. 24, 1871
118,438	Davenport, James B., New York, N. Y. Barrel, tank, and cask for transporting acid and petroleum	Aug. 22, 1871
115,584	Davenport, Nelson, Troy, N. Y. Oar	June 6, 1871
112,130	Davenport, Frank P., assignor to self, John W. Cherry, and Thomas Logan, Carthage, Ill. Meadow-cultivator	Feb. 28, 1871
	Davey, Charles C., and Jost Stengel. (See Stengel & Davey.)	
	Davey, William O., & Sons. (See Wilkinson, Edward, assignor.)	
117,609	Dauids, John B., New York, N. Y. Mallet	Aug. 1, 1871
	Davidson, Charles H., deceased, by Herman E. Davidson, administrator, and Herman E. Davidson for himself, Gloucester, Mass. Enema-syringe. (Extension)	Mar. 16, 1871
	Davidson, Marshall T. (See Frisbie, John L., assignor) (Two cases.)	
113,745	Davies, Henry, Newport, Ky. Cut-off for blast-furnace	April 18, 1871
121,762	Same.....Blast-furnace	Dec. 12, 1871
114,773	Davies, Henry J., New York, N. Y. Elastic-type. (Antedated May 1, 1871.)	May 16, 1871
117,391	Davies, John R., Racine, Wis. Method and apparatus for molding match-plates	July 25, 1871
115,938	Davies, John Storey, and Walter Edward Yates, England. Loom	June 13, 1871
114,113	Davies, Thomas A., New York, N. Y. Lamp-chimney	April 25, 1871
	Davis, Abram V. (See Lesner, Alexander C., assignor.)	
118,588	Davis, Addison, and Theodore Parsons, Boston, Mass. Prop for holding up the lids of boxes, &c.	Aug. 29, 1871
121,160	Davis, Albert J., Newark, N. J. Drain-pipe machine	Nov. 21, 1871
	Davis, Alfred B., <i>et al.</i> (See Shrieves, Charles D., assignor.)	
118,912	Davis, Andrew, Oxford, Mass. Machine for leveling cutting-blocks	Sept. 12, 1871
120,370	Davis, Anna, Reno, Nev. Wardrobe	Oct. 31, 1871
120,864	Davis, Arthur A., Clark's Green, Pa. Lifting-jack	Nov. 14, 1871
121,278	Davis, Asahel, Lowell, Mass. Dovetailing-machine	Nov. 28, 1871
120,947	Davis, Augustus Ball, Philadelphia, Pa. Wrench	Nov. 14, 1871
115,175	Davis, Biram C., assignor to self and Robert B. Doubleday, Binghamton, N. Y. Method of boxing blind-staples	May 23, 1871
	Davis, Charles A. (See Earlywine, Nathan, assignor.)	
	Davis, Curtis. (See Ultsch, John B., assignor.)	
118,589	Davis, Daniel, assignor to the Davis Patent Hub and Wheel Company, New York, N. Y. Wheel-hub for vehicles	Aug. 29, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,112	Davis, David P., Jersey City, N. J. Meter.....	Aug. 15, 1871
112,693	Davis, Ellwood, and Jacob M. Stiles, Camden, N. J. Locking stop-cock	Mar. 14, 1871
	Davis Excavator Company. (See Davis, Robert W., assignor.)	
117,155	Davis, Francis N., Beloit, Wis. Paper for buildings	July 18, 1871
5,224	Davis, George, Cincinnati, Ohio. Flour-safe	Aug. 29, 1871
	Davis, George A., <i>et al.</i> (See Marr, Maughlin & Davis.)	
	Davis, George L., George G., and James H., <i>et al.</i> (See McGovern, Peter, assignor.)	
	Same.....(See Ashworth, John, assignor.)	
	Same.....(See Stone, Joseph M., assignor.)	
119,453	Davis, Henry, and Rinaldo Alden, Erie, Pa. Refrigerator	Oct. 3, 1871
121,161	Davis, Henry G., Worcester, Mass. Loom	Nov. 21, 1871
114,271	Davis, Henry J., Wetumpka, Ala. Cotton-press. (Antedated April 26, 1871)	May 2, 1871
110,904	Davis, Hilar D., Andover, Mass. Loom	Jan. 10, 1871
116,277	Davis, Jacob W., Reno, Nev. Ironing and stretching board	June 27, 1871
115,176	Davis, Jacob Z., San Francisco, Cal. Fastener for doors and windows	May 23, 1871
111,437	Davis, James, Saratoga, N. Y. Potato-digger	Jan. 31, 1871
112,556	Same.....Chicago, Ill. Mop-head	Mar. 14, 1871
	Davis, Jesse J. (See Bollermann, Dominic L., assignor.)	
118,793	Davis, John P. T., assignor to self and Samuel Davis, New Trenton, Ind. Excavator. (Antedated Sept. 11, 1871)	Sept. 12, 1871
120,045	Davis, John S., Louisville, Ky. Bale-tie. (Antedated Oct. 11, 1871)	Oct. 17, 1871
120,420	Davis, John W., and James Vermilion, assignors to selves and George B. Edwards; and said Vermilion assignor to said Edwards, Washington, D. C. Fire-escape. (Antedated Oct. 14, 1871)	Oct. 31, 1871
114,774	Davis, Joseph, assignor through mesne assignments to self, John Rigby, and A. Filson Dalzell, Pittsburgh, Pa. Reverberating-furnace	May 16, 1871
	Davis, Joseph, <i>et al.</i> (See Rigby, John, assignor.)	
112,127	Davis, Joshua, Limestoneville, Pa. Magazine fire-arm.....	Feb. 28, 1871
121,088	Davis, Leonard L., Springfield, Mass. Spirit-level	Nov. 21, 1871
	Davis Patent Hub and Wheel Company. (See Davis, Daniel, assignor.)	
117,992	Davis, Perry W., Portland, Oreg. Car-coupling	Aug. 15, 1871
114,650	Davis, Perry W., and Dennis D. Bunnell, Portland, Oreg. Water-wheel gate.....	May 9, 1871
117,993	Davis, Robert W., assignor to the Davis Excavator Company, Sonora, N. Y. Excavating-machine.....	Aug. 15, 1871
115,827	Davis, Salmon P., Constantine, Mich. Stove-grate.....	June 13, 1871
116,692	Davis, Samuel, New Trenton, Ind. Butteris.....	July 4, 1871
112,129	Davis, Samuel H., and David W., Detroit, Mich. Preserving fish by freezing	Feb. 28, 1871
	Davis, Samuel H., jr. (See Miller, Henry S., assignor).....(Three cases.)	
121,996	Davis, Samuel W., and Charles P. Elliott, Norristown, Pa. Pencil-sharpener	Dec. 19, 1871
112,906	Davis, Walter D., Charles W. Blakeslee, and Joseph C. Peck, Watertown, Conn. Harness-rossette	Mar. 21, 1871
112,128	Davis, Walter S., Warner, N. H. Water-wheel curb	Feb. 28, 1871
118,846	Davis, William H., Lexington, Ind. Tire for wheels of vehicles	Sept. 12, 1871
120,185	Davis, William M., Cincinnati, Ohio. Electric-clock	Oct. 24, 1871
111,731	Davis, William M., assignor to self and S. S. Norton, Mount Sinai, N. Y. Ornamenting mirrors.....	Feb. 14, 1871
119,126	Davis, William P., Honeoye Falls, N. Y. Windlass.....	Sept. 19, 1871
112,557	Davison, Darius, New York, N. Y. Gas-retort	Mar. 14, 1871
117,610	Same.....same.....	Aug. 1, 1871
119,329	Same.....Manufacture of illuminating-gas	Sept. 26, 1871
120,121	Same.....Manufacture of coal-gas. (Antedated Oct. 6, 1871)	Oct. 24, 1871
120,501	Davison, Ferdinand, Liberty, Va. Cut-nail machine	Oct. 31, 1871
116,567	Davison, George A., Montana, Iowa. Addressing-machine.....	July 4, 1871
114,775	Davison, John C., Chicago, Ill. Acid-bottle for fire-extinguishers	May 16, 1871
118,794	Davison, William, Baltimore, Md. Machine for washing white lead	Sept. 12, 1871
115,715	Davol, William C., jr., Fall River, Mass. Hose-leak stopper.....	June 6, 1871
4,789	Dawes, John L., Pittsburgh, Pa. Bitter-tube.....(Design).....	April 11, 1871
117,994	Dawson, Paul R., Brenham, Tex. Hame-tug for harness	Aug. 15, 1871
118,113	Dawson, Zedekiah, Cole Creek, Ind. Millstone-balance.....	Aug. 15, 1871
111,519	Day, Alfred, assignor of one-half interest to Francis Lyford, Skowhegan, Me. Clothes-drier	Feb. 7, 1871
116,935	Day, Charles T., Newark, N. J. Skate.....	July 11, 1871
117,054	Day, Daniel C., San José, Cal. Side-hill plow. (Antedated July 12, 1871)	July 18, 1871
	Day, Eben A. (See Lawton, Christopher P., assignor.)	
117,519	Day, Edwin, Rockford, Ill. Steam-generator	Aug. 1, 1871
120,232	Day, Francis E., Kennedy, N. Y. Cheese-rat	Dec. 26, 1871
118,696	Day, Horace H., Bloomingdale, N. J. Combined hydraulic and pneumatic elevator for railroads	Sept. 5, 1871
	Day, Levi, <i>et al.</i> (See Wagner, Alfred H., assignor.)	
115,939	Day, Lloyd, Baltimore, Md. Corn-sheller	June 13, 1871
	Day, Ralph A. (See Rayment, William L., assignor.)	
114,931	Dayton, Charles E., Meriden, Conn. Can-top	May 16, 1871
	Dayton, Edwin, <i>et al.</i> (See Goodwin, William, assignor).....(Reissue.)	
111,617	Dayton, John W., Augusta, Me. Suspender	Feb. 7, 1871
116,165	Deacon, George Frederick, assignor to Dillwyn Smith, England. Apparatus for feeding furnaces with fuel	June 20, 1871
118,209	Deacon, Henry, England. Apparatus for the manufacture of chlorine	Aug. 22, 1871
18,210	Same.....Manufacture of bleaching-powder	Aug. 22, 1871
18,211	Same.....Apparatus for producing chlorine	Aug. 22, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,212	Deacon, Henry, England. Treating mixed gases containing chlorine for the production of bleaching-powder, &c.	Aug. 22, 1871
121,595	Same..... Manufacture of bleaching-powder, sulphates, &c.	Dec. 5, 1871
4,606	Deacon, Joseph H., Lumberton, N. J. Manufacture of alcoholic liquor from the rhubarb-plant. (Reissue)	Oct. 24, 1871
117,749	Dean, Aaron, Ann Arbor, Mich. Portable fire-shield	Aug. 8, 1871
118,591	Dean, Charles A., Boston, Mass. Fiber-cleaning machine	Aug. 29, 1871
115,828*	Dean, Charles A., assignor to James A. Coe, Boston, Mass. Machine for cleaning sisal hemp and other grasses	June 13, 1871
	Dean, Lloyd H. (See Lee, Charles T., assignor.)	
114,272	Dean, Otis, Richmond, Va. Gas-regulator	May 2, 1871
118,697	Dean, Walter L., Dayton, Ohio. Log-binder	Sept. 5, 1871
	Dean, William, and Charles E. Barber. (See Barber & Dean.)	
113,859	Dean, William G., Brooklyn, N. Y. Preparing flour for use in confectionery, &c.	April 18, 1871
110,835	Deane, Charles P., Springfield, Mass. Steam-engine valve	Jan. 10, 1871
121,451	Same..... Direct-acting steam-engine. (Antedated Nov. 20, 1871)	Dec. 5, 1871
113,405	Deane, Collins W., Philadelphia, Pa. Sediment-collector for steam-boilers	April 4, 1871
4,635	Same..... same (Reissue)	Nov. 14, 1871
110,747	Deane, Royal E., and Thomas Shedd, New York, N. Y. Door for ranges	Jan. 3, 1871
119,266	Dearborn, Gilbert K., assignor to James Berney, Smithfield, R. I. Blind-fastener	Sept. 26, 1871
117,055	Deardorff, George B., Canal Dover, Ohio. Harvester-platform	July 18, 1871
115,447	Deavs, Charles, assignor to the Archer and Pancoast Manufacturing Company, New York, N. Y. Sliding gas-joint for extension drop-lights	May 30, 1871
118,349	Same..... Sustaining device for center drop-lights for gasoliers	Aug. 22, 1871
121,340	Same..... Chuck for screw-cutting	Nov. 28, 1871
119,583	De Baun, Rebecca, Chicago, Ill. Corset. (Antedated Sept. 18, 1871)	Oct. 3, 1871
4,667	De Bolt, William P. (See Chavons, Hilry, assignor.)	
	De Busson, Elise, Youkers, N. Y. Spoon. (Design)	Feb. 21, 1871
	Dechert, Robert P. (See Cresson, Charles M., assignor.)	
112,326	Decker, Ebenezer L., Southport, Me. Mackerel-line holder	Mar. 7, 1871
118,913	Decker, Frederick E., assignor to Edward Simon & Brothers, Newark, N. J. Sewing-machine	Sept. 12, 1871
113,746	Decker, James, assignor to self and F. McRae, Holmesville, Ga. Shingle-machine	April 18, 1871
113,270	Decker, John N., assignor to self and Thomas J. Smith, Covington, Ky. Spring for vehicles	April 4, 1871
5,328	Decker, Levi, assignor to Kavanaugh & Decker, New York, N. Y. Billiard-table (Design)	Oct. 31, 1871
117,265	Decker, Sylvanus, and Frazee Ayres, Rahway, N. J. Washing-machine	July 25, 1871
120,046	Decrow, Marion G., assignor of one-half interest to Joseph P. Decrow, jr., Newark, Ohio. Churn-dasher rod	Oct. 17, 1871
	Decrow, Marion G. (See Armstrong, John, assignor.)	
120,630	De Dartlin, Charles Felix and Jules E., France. Metallic cartridge	Nov. 7, 1871
115,283	Dee, Henry William, England. Liquid-flask	May 30, 1871
	Deeble, John. (See Prindle, Franklin B., assignor.)	
119,080	Deeds, William S., Baltimore, Md. Solder	Sept. 19, 1871
117,611	Deeds, William S., Baltimore, Md., and John P. Bradway, Philadelphia, Pa. Combined circular and elliptical cutter	Aug. 1, 1871
121,932	Deering, William, Louisville, Ky. Horse-power	Dec. 19, 1871
110,905	Deey, Edward Mortimer, New York, N. Y. Ventilator	Jan. 10, 1871
111,914	Same..... Base-burning stove	Feb. 21, 1871
113,271	Same..... Fluting-machine	April 4, 1871
121,235	Same..... same	Nov. 28, 1871
	Defrees, John D., and William E. Prall. (See Prall & Defrees.)	
	Defrees, William H., and Samuel H. Warren. (See Warren & Defrees.)	
	De Frondat, Charles. (See Prud'homme, Pierre Désiré, assignor.)	
118,213	Degen, Francis, and Edwin R. Parsil, Newark, N. J. Cover for cones of hat-body formers	Aug. 22, 1871
114,776	Degenhardt, George C. Louis, Williamsburgh, N. Y. Purifying water for use in steam-boilers, &c.	May 16, 1871
120,723	Degree, James, Hinesburgh, Vt. Furnace for heating tires	Nov. 7, 1871
	De Haas, James B., and Stephen A. Gibson. (See Gibson & De Haas.)	
	Deibert, Jeremiah M., et al. (See Royal, Lentz & Deibert.)	
113,272	Deitz, Lewis, Benjamin P. Wayne, and Albern Stone, Auburn, N. Y. Manufacture of billiard-balls and other composition articles	April 4, 1871
	Deitzler, George W. (See Hearne, John C., assignor.)	
	De Jonge, Jan, and Marinus Van Quine. (See Van Quine & De Jonge.)	
	Delacourt, Louis, et al. (See Desumeur, Dudin & Delacourt.)	
117,750	De Lagillardaie, Edouard, France. Suction-siphon	Aug. 8, 1871
	Delamater, Cornelius H., et al. (See Rider, Alexander K., assignor.) (Six cases.)	
	Same..... (See Reynolds, George H., assignor) (Three cases.)	
	De La Mater, Silas, and Frederick A. Ross. (See Ross & De La Mater.)	
112,020	De Land, Henry C., Syracuse, N. Y. Lubricator for steam-chests	Feb. 21, 1871
116,819	Delaney, Mathew, New York, N. Y. Manufacture of rubber-cushions for billiard-tables	July 11, 1871
117,995	Same..... Billiard-cushion	Aug. 15, 1871
	De Lany, John C. (See Smith, George, assignor) (Two cases.)	
113,747	Delap, J. Dyson, Tyrone Township, Pa. Corn-planter	April 13, 1871
121,162	De la Peyrouse, Leo Louis Aimé Elie Picot, France. Treating fatty matters	Nov. 21, 1871
	Delarue, Joseph and Patrick W. Brown. (See Brown & Delarue.)	
121,163	De Lill, Lewis, Phoenix, N. Y. Propeller for vessels	Nov. 21, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,495	Delkescamp, Adolph, assignor of one-half interest to John North, New York, N. Y. Eyeletting-machine	Dec. 5, 1871
118,518	Dellinger, Frederic D., and Samuel H. Hunt, Waynesborough, Va. Car-truck. (Antedated Aug. 17, 1871)	Aug. 29, 1871
113,273	Delmont, Rensselaer F., Flemington, Pa. Extension-ladder	April 14, 1871
119,584	De Man, Alphonse, Belgium. Rudder for vessels	Oct. 3, 1871
113,986	Demarest, John, assignor to self and Jordan L. Mott, Mott Haven, N. Y. Flask for casting pipe	April 25, 1871
117,266	Same.....Molding-machine	July 25, 1871
119,127	Same.....Leader-pipe coupling	Sept. 19, 1871
121,043	Demarest, John L., Elmira, N. Y. Thread-rack for spooling-attachments of sewing-machines	Nov. 21, 1871
	Demary, Newcomb, jr., Attica, N. Y. Snow-plow	Nov. 29, 1871
113,636	Dement, Robert H., Hudson, Ill. Wagon-brake	April 11, 1871
	Deming, George N., and De Witt C. Ellis. (See Ellis & Deming.)	
4,552	Deming, John, assignor to self and A. R. Silver, Salem, Ohio. Spoke-tenoning and hub-boring machine	Sept. 12, 1871
121,279	Deming, Loton L. and Andrew J., and Rinaldo Alden, Erie, Pa. Bed-bottom ..	Nov. 23, 1871
121,997	Demongeot, Narcisse, Washington, D. C. Hair-weaving and mounting apparatus ..	Dec. 19, 1871
120,251	Demorest, David W., Newark, N. J. Lightning-rod coupling	Oct. 24, 1871
5,329	Demoussy, Emile, assignor to Joseph Wild & Co., France. Printed carpet. (Design)	Oct. 31, 1871
113,274	Demuth, Theodore, Danbury, Conn. Felted fabric	April 4, 1871
4,856	Demuth, William A., New York, N. Y. Bottle.....(Design) ..	May 2, 1871
114,419	De Navarro, Jose F., New York, N. Y. Water-meter with stop-cock connections	May 2, 1871
	Same.....(See Moore, Charles, assignor.)	
	Same.....(See Sergeant, Henry C., assignor).....(Two cases.)	
	Same.....(See Snediker, William E., assignor.)	
114,420	De Navarro, Jose F., and Henry C. Sergeant, assignors to Jose F. De Navarro, New York, N. Y. Liquid-meter	May 2, 1871
113,502	Denis, Julian, England. Preparation of paper-pulp and manufacture of paper. (Antedated March 24, 1871)	April 4, 1871
113,637	Denison, Daniel M., Savannah, Ga. Stall for horses	April 11, 1871
120,631	Denison, George M., Essex, Conn. Compound for lubricating axles	Nov. 7, 1871
4,747	Denison, Wellington, assignor to self and Joseph H. Knight, Cincinnati, Ohio. Gang-press	April 4, 1871
4,919	Denney, Samuel L., Christiana, Pa. Medal	May 23, 1871
5,103	Dennick, Lyman L., Chicago, Ill. Picture-frame	July 11, 1871
112,789	Denning, Isaac W., Allegheny City, Pa. Fire-shovel	Mar. 21, 1871
118,914	Dennis, Dexter, Barre, Mass. Machine for forming hats	Sept. 12, 1871
115,035	Dennis, Joseph H., and Willoughby F. Kistler, Chicago, Ill. Lantern-globe holder	May 23, 1871
121,596	Dennis, Joseph Mason, Galesburgh, Ill. Extensible furniture. (Antedated Nov. 24, 1871)	Dec. 5, 1871
	Dennison, Edward H., et al. (See Balch, William L., assignor.)	
116,166	Dennison, Oliver P., Mulberry, Ohio. Meat-crusher	June 27, 1871
121,039	Dennison, Robert S., Winsted, Conn. Lamp-bracket for sewing-machines	Nov. 21, 1871
	Denniston, Joseph F., and Samuel F. Burd. (See Burd & Denniston.)	
117,751	Denny, Nicholas, Saranac, Mich. Animal-poke	Aug. 8, 1871
4,668	Densmore, Daniel, Red Wing, Minn. Clothes-line reel-iron	Feb. 21, 1871
	Densmore, James. (See Sholes, C. Latham, assignor.)	
113,406	Densmore, Myron H., assignor to self, Milton J. Snyder, and Aaron Briggs, Shickshinny, Pa. Trace-buckle	April 4, 1871
	Densmore, Myron H., and George W. Briggs. (See Briggs & Densmore.)	
118,698	Denton, James and Whitley, Amsterdam, N. Y. Extension clothes-pole	Sept. 5, 1871
118,519	Denton, Whitley, Amsterdam, N. Y. Wringing-machine	Aug. 29, 1871
114,421	De Pew, William, Paris, Canada. Fire-escape	May 2, 1871
	De Peyster, Nicholas. (See Chandler, Thomas W., assignor.)	
118,214	De Poe, James H., assignor to self and Richard Mansell, Boonton, N. J. Carpet-stretcher	Aug. 22, 1871
114,273	De Puy, Alexander T., New York, N. Y. Printers' case	May 2, 1871
115,829	Derby, John K., Jamestown, N. Y. Clothes-drier	June 13, 1871
116,418	Derby, John K., assignor to Daniel A. Seymour and Elias B. Stilson, Jamestown, N. Y. Reamer	June 27, 1871
121,496	Derrick, Anthony J., Sheridan, Nev. Butter-mold. (Antedated Nov. 18, 1871) ..	Dec. 5, 1871
121,558	Desaulniers, Antoine, Oswego, N. Y. Bitters	Mar. 14, 1871
	Desbarats, George Edward. (See Leggo, William Augustus, assignor.)	
112,429	Deschamps, Francis Oliver, Philadelphia, Pa. Rotary pump	Mar. 7, 1871
118,915	Same.....Rotary steam-engine	Sept. 12, 1871
111,520	Desmedt, Edward J., New York, N. Y. Asphalt cement for pavements, drain-pipes, &c	Feb. 7, 1871
120,502	Desmolins, Claude Léon, France. Stone-crushing machine	Oct. 31, 1871
115,940	De Souchet, Augustus M., Evansville, Ind. Water-meter	June 13, 1871
121,452	Desumeur, Jean C., Celestin and Edward Dudin, and Louis Delacourt, France. Fastening driving-belts	Dec. 5, 1871
115,941	Detrick, John, and William B. Niven, assignors to William B. Niven, Bellefontaine, Ohio. Bee-hive	June 13, 1871
	Detroit Novelty Works. (See Thompson, Walter, assignor.)	
	Same.....(See Dinnen, William, assignor.)	
	Detroit Stove Works. (See Miller, John D., assignor.)	
	Same.....same.....(Design.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,114	Detweiler, John, West Liberty, Ohio. Loom.....	Aug. 15, 1871
111,045	Detwiler, Benjamin H., and Samuel G. Van Gilder, Williamsport, Pa. Pre-serving wood.....	Jan. 17, 1871
118,215	Deuel, Frederic P., Tecumseh, Mich. Stave-jointer.....	Aug. 22, 1871
118,216	Deutsch, Charles K., New York, N. Y. Wooden pavement.....	Aug. 22, 1871
110,748	De Valin, John H., Baltimore, Md. Machine for bending metal stirrups.....	Jan. 3, 1871
118,592	De Valin, William H., Sacramento, Cal. Pavement for streets, &c.....	Aug. 29, 1871
110,749	Deveau, Samuel, Syracuse, N. Y. Washing-machine.....	Jan. 3, 1871
117,520	Devine, William, Philadelphia, Pa. Sizing for window-shades.....	Aug. 1, 1871
116,030	Devines, William, Williamsburgh, N. Y. Scrubbing-brush.....	June 20, 1871
122,233	Devlan, Arthur C., Altoona, Pa. Operating railway-switches.....	Dec. 26, 1871
113,860	Devlan, Patrick S., Jersey City, N. J. Lubricator for journals.....	April 18, 1871
111,438	Devlan, Patrick S., assignor to self, Isaac P. Wendell, and Stephen P. M. Tasker, Jersey City, N. J. Combined pneumatic and rubber spring.....	Jan. 31, 1871
111,618	Devlin, James W., Yonkers, N. Y. Hand-vise.....	Feb. 7, 1871
121,855	Devoe, Benjamin G., Fredericktown, Ohio. Fence.....	Dec. 12, 1871
112,225	Devol, Jonathan L., Parkersburgh, W. Va. Shutter-fastener.....	Feb. 23, 1871
115,448	Same..... Locking-latch for gates.....	May 30, 1871
118,217	Devore, Leonard, assignor of two-thirds interest to D. J. Hussey and B. F. Booth, Victor, Iowa. Combined corn harvester and husker.....	Aug. 22, 1871
116,031	Dewey, Albert L., Westfield, Mass. Steam-engine.....	June 20, 1871
116,568	Same..... Toy-locomotive steam-engine.....	July 4, 1871
118,218	Same..... Miniature steam fire-engine.....	Aug. 22, 1871
117,267	Dewey, Alvah, Princeton, Ky. Feed apparatus for millstones.....	July 25, 1871
118,593	Dewey, Edward M., San Francisco, Cal. Can-opener. (Antedated Aug. 11, 1871).....	Aug. 29, 1871
113,029	Dewey, Orville C., assignor to Joseph Dudley and Frederick Lindemann, Wheeling, W. Va. Nail-plate rolling.....	Mar. 28, 1871
	Dewey, Rodney H., and Almon N. Allen. (See Allen & Dewey)..... (Five cases.)	
113,638	Dewey, W. S., et al. (See Boon & Mills, assignors.)	
	Dewey, William W., Tidionte, Pa. Attachment to oil-well tubing.....	April 11, 1871
	Dewitt, Ezra. (See Dickinson, Samuel T., jr., assignor.)	
	Dewitt, Moses A. (See Watson, Peter B., assignor.)	
117,956	De Witzleben, Arthur, Washington, D. C. Barrel-pitching machine. (Ante-dated Aug. 1, 1871).....	Aug. 8, 1871
116,569	Dexter, Albert M., Mattapoisett, Mass. Saw-mill.....	July 4, 1871
113,748	Dexter, George R., New York, N. Y. Scarf.....	April 18, 1871
110,906	Dexter, John M., Elmira, N. Y. Railroad-car ventilator.....	Jan. 10, 1871
116,278	De Yo, George P., Groton Township, Ohio. Machine for pulverizing soil.....	June 27, 1871
115,716	Deyo, Ira, assignor to self and O. Brown, Naples, N. Y. Bedstead.....	June 6, 1871
115,830	Deyoe, Henry, Machias, N. Y. Fence.....	June 13, 1871
	De Zouche, L. H., et al. (See Gubbins, Richard, assignor)..... (Two cases.)	
112,226	D'Heureuse, Rudolph, N. Y. Fermentation and purification of organic sub-stances.....	Feb. 28, 1871
113,749	Dial, Martin N., Painesville, Ohio. Dirt-chamber for gas-pipes.....	April 18, 1871
120,724	Dibble, John L., New York, N. Y. Holder for stereoscopic pictures.....	Nov. 7, 1871
	Dick, Charles James Adolph. (See Levi & Kunzel, assignors)..... (Two cases.)	
4,875	Dick, Dundas, assignor to Marie A. Mauger, New York, N. Y. Package. (Design.)	May 9, 1871
114,651	Same..... Clamp for holding packages, &c.....	May 9, 1871
116,032	Dick, James M., Buffalo, N. Y. Wool-drier.....	June 20, 1871
121,280	Dick, Joseph F., New Orleans, La. Refrigerator.....	Nov. 28, 1871
111,732	Dickerman, Charles C., Boston, Mass. Night-latch. (Antedated Feb. 4, 1871).....	Feb. 14, 1871
120,632	Dickerman, Fletcher W., New York, N. Y. Seat for chairs and stools.....	Nov. 7, 1871
	Same..... (See Westbrook, Abraham D., assignor.)	
120,948	Dickerson, Theodore J., and Oliver B. Warren, Auburn, N. Y. Machine for cutting solid leather-beltting.....	Nov. 14, 1871
121,597	Dickey, Aaron F., Benford's Store, Pa. Bee-hive.....	Dec. 5, 1871
	Dickey, Andrew, and John S. Perry. (See Perry & Dickey.)	
120,186	Dickey, James, Oil City, Pa. Process of removing obstructions in oil-wells.....	Oct. 24, 1871
119,330	Dickey, Julius C., Titusville, Pa. Torpedo for oil-wells.....	Sept. 26, 1871
120,574	Same..... same.....	Nov. 7, 1871
	Dickie, David M. (See Redding, Benjamin, assignor.)	
	Dickinson & Bros. (See Smith, Gad, assignor.)	
118,594	Dickinson, Alfred, Olean, N. Y. Stump-extractor.....	Aug. 29, 1871
115,178	Dickinson, Alfred S., Brooklyn, N. Y. Window-shade fixture.....	May 23, 1871
121,998	Dickinson, Arthur, New York, N. Y. Means of extending the tables of sewing-machines. (Antedated Dec. 5, 1871).....	Dec. 19, 1871
115,284	Dickinson, Charles G., Poughkeepsie, N. Y. Grain-binder.....	May 30, 1871
4,377	Dickinson, Charles G., assignor through mesne assignments to J. Russell Par-sons, Poughkeepsie, N. Y. Harvester-rake..... (Reissue).....	May 9, 1871
117,156	Dickinson, Edward S., and John L. Peake, New York, N. Y. Draining cellars.....	July 18, 1871
116,033	Dickinson, John H., Chicopee Falls, Mass. Straw-cutter.....	June 20, 1871
	Dickinson, John T., et al. (See Greenleaf, William A., assignor.)	
121,763	Dickinson, Samuel T., jr., assignor to self and Ezra Dewitt, Belvidere, N. J. Tinman's tongs.....	Dec. 12, 1871
	Dickson, Joseph E. (See Richmond, Seelye, assignor.)	
	Dickson, Joseph E., and Daniel M. Sprogle. (See Sprogle & Dickson.)	
113,145	Dickson, Joseph E., and Seelye Richmond, Annapolis, Md. Garden-bed border.....	Mar. 28, 1871
112,559	Dickson, Samuel, Chicago, Ill. Wagon-box and hay-rack.....	Mar. 14, 1871
115,585	Dickson, Walter, Albany, N. Y. Cork-screw attachment.....	June 6, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Diebold and Kiengle. (<i>See</i> Tonsley, Miron G., assignor.)	
	Diebold, Charles, and Jacob Kiengle. (<i>See</i> Obernesser, Jacob, assignor.)	
	Diebold, Charles, and Gethelf Gartner. (<i>See</i> Gartner & Diebold.)	
113,030	Dieckmann, Ferdinand, Cincinnati, Ohio. Bridge	Mar. 28, 1871
121,341	Same.....Stove-pipe elbow	Nov. 28, 1871
113,520	Diefendorf, Eugene W., Moniteau, Mo. Bee-hive	Aug. 29, 1871
	Diefendorf, John J. (<i>See</i> Riggs, John W., assignor.).....(<i>Reissue.</i>)	
121,933	Diehl, George H., assignor to self and Thomas H. Ricketts, Chicago, Ill. Steam-boiler furnace	Dec. 19, 1871
113,146	Diehl, Jacob J., Harrisburgh, Pa. Sash-holder	Mar. 28, 1871
115,036	Diehl, Philip, and Ludwig Oehring, Chicago, Ill. Feeding-mechanism for sewing-machines	May 23, 1871
	Diehl, Phillip, and Friederich Heyl. (<i>See</i> Heyl & Diehl.)	
117,871	Dierkes, Henry A., New York, N. Y. Call-bell	Aug. 8, 1871
112,907	Dierkes, Henry A., and John Fretts; said John Fretts assignor to said Henry A. Dierkes, New York, N. Y. Call-bell	Mar. 21, 1871
115,536	Dieterich, Charles F., and August Schussler, New York, N. Y. Air-tight joint for gas-retorts	June 6, 1871
115,717	Dieterich, Daniel P., and Richard M. Popham, assignors to Daniel P. Dieterich, Philadelphia, Pa. Step-cover	June 6, 1871
113,639	Dieterich, Jerome C., Rochester, N. Y. Buck-saw frame	April 11, 1871
	Dietrich, Charles H., and George C. Smith. (<i>See</i> Smith & Dietrich.)	
	Dietrick, Abram J., and John Q. Merriam. (<i>See</i> Merriam & Dietrick.)	
112,560	Dietz, Andrew, New York, N. Y. Stone-crusher	Mar. 21, 1871
114,777	Dietz, Edward, Philadelphia, Pa. Reclining-chair	May 16, 1871
120,047	Diezel, Andrew, Omaha, Nebr. Powder-flask	Oct. 17, 1871
113,861	Diggins, Henry M., Cincinnati, Ohio. Corpse-preserver	April 18, 1871
	Dighton Furnace Company. (<i>See</i> Coddling, James H., assignor.)	
118,595	Dill, Joseph, Grand Rapids, Mich. Marquetry	Aug. 29, 1871
117,157	Dillaway, Hiram, Sandwich, Mass. Mold for glass lamps	July 13, 1871
111,915	Diller, George W., assignor to self and George B. Woodbury, Odell, Ill. Fastening end-boards on wagons	Feb. 21, 1871
112,561	Dillingham, Isaac, Boston, Mass. Pump	Mar. 14, 1871
111,327	Dillingham, Moses W., Amsterdam, N. Y. Screw-driver	Jan. 31, 1871
116,693	Dillon, William, Wheeling, W. Va. Boiler-tile support	July 4, 1871
111,916	Dilworth, Joseph, and John C. Hodgins, New York, N. Y. Condenser and feed-water heater for engines	Feb. 21, 1871
110,750	Dimick, Albert J., Berlinville, Ohio. Gate	Jan. 3, 1871
117,612	Dimock, Ira, assignor to the Nonotuck Silk Company, Boston, Mass. Quills for silk	Aug. 1, 1871
114,114	Dimock, Lucius, Leeds, Mass. Silk and thread measuring apparatus	April 25, 1871
	Dimsdate, Augustus Salem, <i>et al.</i> (<i>See</i> Ellis, George Henry, assignor.)	
122,234	Dindinger, Jacob and Christian H., New Orleans, La. Stone-sawing machine	Dec. 26, 1871
113,275	Dingee, John F., Bedford Station, N. Y. Sash-holder	April 4, 1871
113,750	Dingee, William W., assignor to the Geiser Thrashing-Machine Company, Racine, Wis. Horse-power	April 18, 1871
116,034	Dingman, Emerson, Liverpool, N. Y. Clothes-line holder	June 20, 1871
113,503	Dinnen, William, assignor to the Detroit Novelty Works, Detroit, Mich. Compression-cock	April 11, 1871
113,407	Dinsmore, Alfred S., assignor to self, John O. Richardson, jr., and Daniel D. Foster, Boston, Mass. Sewing-machine	April 4, 1871
119,331	Dinsmore, Alpheus B., Springfield, Mass. Railway-car seat	Sept. 26, 1871
	Dinsmore, Joshua N., and Thomas B. Brown. (<i>See</i> Brown & Dinsmore.)	
120,725	Dinwiddie, Archibald F., Columbia, Mo. Washing-pounder	Nov. 7, 1871
119,829	Dirner, John P., Honesdale, Pa. Machine for dressing railway-ties	Oct. 10, 1871
	Disbrow, Benjamin L., <i>et al.</i> (<i>See</i> Margerum, Mahlon R., assignor.)	
112,227	Disston, Henry, Philadelphia, Pa. Saw	Feb. 28, 1871
111,619	Disston, Henry, and Thomas O. Hill, assignors to Henry Disston & Son, Philadelphia, Pa. Saw	Feb. 7, 1871
	Disston, Henry, & Son. (<i>See</i> Baker, John G., assignor.)	
	Same.....(<i>See</i> Bevan, Samuel, assignor.)	
	Same.....(<i>See</i> Reid, Robert, assignor.)	
110,751	Disston, Thomas S., assignor to self and Henry Disston & Son, Philadelphia, Pa. Handle for cross-cut saws	Jan. 3, 1871
115,285	Dithridge, Edward, Pittsburgh, Pa. Surgical instrument for the relief of the piles	May 30, 1871
114,533	Diven, Robert, Williamsburgh, N. Y. Base-burning stove	May 9, 1871
114,652	D'Ivernois, Eardley Louis Charles, France. Producing the electric light	May 9, 1871
	D'Ivernois, Eardley Louis Charles, and Zenobe Theophile Gramme. (<i>See</i> Gramme & D'Ivernois.)	
4,974	Dixon, Henry Jecks, & Sons. (<i>See</i> Christie, Joseph Miller, assignor.)..(<i>Design.</i>)	
	Dixon, Thomas N., and Charles Friese, assignors to Thomas N. Dixon & Sons, Philadelphia, Pa. Gas fire-logs	June 6, 1871
116,035	Dixon, Zohrab, Bristol, Ill. Tea-kettle cover	June 20, 1871
111,046	Doan, Gerard, Theodore Wallis, and George D. Moreland, assignors to Thomas M. Jones, Fleming, N. Y. Hounds, sway-bars, tongue-braces, and cross-bars of vehicles	Jan. 17, 1871
115,718	Doan, John F. M., Niles, Mich. Current-water wheel	June 6, 1871
119,081	Doane, Sharron P., San Francisco, Cal. Nozzle for oil-cans	Sept. 19, 1871
121,497	Doane, Truman P., New York, N. Y. Vapor-burner	Dec. 5, 1871
118,699	Doane, William H., Cincinnati, Ohio. Caval	Sept. 5, 1871
	Same.....(<i>See</i> Sprague, Franklin L., assignor.)	
	Doane, William H., and William H. Dobson. (<i>See</i> Dobson & Doane.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
5,268	Doane, William H., assignor to J. A. Fay & Co., Cincinnati, Ohio. Band-saw frame (Design).....	Sept. 19, 1871
120,949	Doane, William H., and William P. McKee, assignors to J. A. Fay & Co., Cincinnati, Ohio. Band-sawing machine.....	Nov. 14, 1871
	Dobler, Anton, and Frederick Charles Spiess. (See Spiess & Dobler.)	
	Dobson & Barlow. (See Plaff, Ernest C., assignor.)	
	Dobson, John. (See Booth, James, assignor.)	
111,328	Dobson, William H., assignor to Henry Lampert, Rochester, N. Y. Scroll-saw.....	Jan. 31, 1871
114,778	Same..... Scroll-sawing machine.....	May 16, 1871
121,856	Dobson, William H., and William H. Doane, assignors to J. A. Fay & Co., Cincinnati, Ohio. Scroll-sawing machine.....	Dec. 12, 1871
	Dodd, Amzi S. (See Heintzelman, Rush B., assignor.)	
114,274	Dodd, John, England. Self-acting mule for spinning.....	May 2, 1871
	Dodd, Viner V., and James Crisp. (See Crisp & Dodd.)	
118,219	Doddridge, Loyal M., Union City, Ind. Washing-machine.....	Aug. 22, 1871
113,504	Dodds, Lewis Z., assignor to self and John B. Moulton, Laporte, Ind. Carriage seat and top.....	April 11, 1871
	Dodenhoff, Israel, deceased, by Joseph W. Budd, administrator, Midland City, Mich. Raking-apparatus for harvesters..... (Extension).....	Aug. 5, 1871
119,830	Dodge, Charles G., Marshall, Mich. Composition for removing incrustation in steam-boilers.....	Oct. 10, 1871
111,521	Dodge, D. Franklin, Lowville, N. Y. Mail-bag fastening.....	Feb. 7, 1871
120,810	Dodge, Hezekiah, Albany, N. Y. Apparatus for drying and finishing paper.....	Nov. 14, 1871
112,430	Dodge, James, assignor to David Blake, England. Machine for cutting piles.....	Mar. 7, 1871
120,575	Dodge, Lemuel P., New York, N. Y. Nursing-bottle.....	Nov. 7, 1871
118,700	Dodge, Levi, Waterford, N. Y. Fire-kindling.....	Sept. 5, 1871
120,048	Same..... Baling-press.....	Oct. 17, 1871
	Dodge, Samuel C., et al. (See Brown, George A., assignor.)	
112,763	Dodge, William C., Washington, D. C. Breech-loading fire-arm.....	Mar. 14, 1871
113,408	Same..... same.....	April 4, 1871
114,653	Same..... same.....	May 9, 1871
112,694	Dodge, William C. and Philip T.; said Philip T. Dodge assignor to said William C. Dodge, Washington, D. C. Breech-loading fire-arm..... (Reissue).....	Mar. 14, 1871
4,483	Dodge, William C., assignor to Horace Smith and D. B. Wesson, Washington, D. C. Revolving fire-arm..... (Reissue).....	July 25, 1871
118,350	Dodge, William C. and Philip T.; said P. T. Dodge assignor to William C. Dodge, Washington, D. C. Breech-loading fire-arm.....	Aug. 22, 1871
119,510	Dodge, William James, New York, N. Y. Wash-boiler.....	Oct. 3, 1871
120,504	Same..... Washing-machine.....	Oct. 31, 1871
112,790	Dodge, William James, assignor to self, Alanson T. Briggs, and William Henry Thrall, New York, N. Y. Washing-machine.....	Mar. 21, 1871
	Dodge, William P., and George G. Parker. (See Parker & Dodge.)	
119,511	Dodson, Harry E., West Liberty, Ohio. Carriage-wheel.....	Oct. 3, 1871
121,999	Dodson, Witley W., and John B. Bray, Lynnville, Tenn. Bee-hive.....	Dec. 19, 1871
118,847	Doe, Horatio W., assignor to self and William F. Matthews, Springfield, Ohio. Device for bending tubes of sheet-metal.....	Sept. 12, 1871
4,647	Dolan, Thomas, Philadelphia, Pa. Stocking-fabric..... (Design).....	Feb. 14, 1871
4,648	Same..... same..... (Design).....	Feb. 14, 1871
4,686	Same..... same..... (Design).....	Feb. 28, 1871
4,826	Same..... same..... (Design).....	April 18, 1871
4,827	Same..... same..... (Design).....	April 18, 1871
4,957	Same..... Cellular-fabric..... (Design).....	May 30, 1871
4,975	Same..... Stocking-fabric..... (Design).....	June 6, 1871
4,976	Same..... same..... (Design).....	June 6, 1871
117,158	Same..... Nubias.....	July 18, 1871
	Same..... (See Hodgson, Joseph, assignor)..... (Three cases.) (Design.)	
	Same..... (See Boot, Henry, assignor.)	
	Same..... (See Truitt, Henry A., assignor)..... (Two cases.)	
114,534	Dole, Charles S., Chicago, Ill. Grain-drying car.....	May 9, 1871
121,857	Dole, William T., Peabody, Mass. Carriage-hub.....	Dec. 12, 1871
122,235	Same..... Mode of coupling carriages.....	Dec. 26, 1871
110,960	Dolin, William P., Charlottesville, Va. Bit-brace. (Antedated Jan. 14, 1871).....	Jan. 17, 1871
113,987	Doll, John H., Etna, Ill. Washing-machine.....	April 25, 1871
	Doll, Noah, and Peter Young. (See Young & Doll)..... (Two cases.)	
115,177	Dolloff, Samuel F., Bloomington, Ill. Churn-dasher.....	May 23, 1871
120,505	Dolmetch, Henry, Canton, Pa. Millstone-dress.....	Oct. 31, 1871
	Dolph, George C., West Andover, Ohio. Mowing-machine..... (Extension).....	Aug. 25, 1871
116,570	Dolton, George E., Monee, Ill. Binding-attachment for sewing-machines.....	July 4, 1871
110,961	Dominie, John J., Gallupsville, N. Y. Clamp.....	Jan. 17, 1871
120,421	Donahy, Thomas, Empire City, Nev. Railway-rail chair.....	Oct. 31, 1871
110,752	Donald, William, Erie, Pa. Quadrat.....	Jan. 3, 1871
114,779	Donaldson, John E., Montezuma, Ind. Molding-plane.....	May 16, 1871
110,636	Donaldson, Nimrod, Lime Creek, S. C. Cotton-planter and manure-distributor.....	Jan. 3, 1871
120,506	Donehoo, Thomas, Richmond, Va. Portable fence.....	Oct. 31, 1871
	Doney, Asa, and David Bradley. (See Bradley & Doney.)	
114,535	Donnellan, Charles E., assignor to self and McCord & Wheatley, Indianapolis, Ind. Machine for making straw-rope.....	May 9, 1871
111,620	Donnelly, Thomas, Pittsburgh, Pa. Device for enlarging wells.....	Feb. 7, 1871
111,822	Donner, Carlos E., San Francisco, Cal. Hub and axle.....	Feb. 14, 1871
117,521	Same..... Sonora, Cal. Feed-cutter.....	Aug. 1, 1871
116,056	Donoghue, William, Philadelphia, Pa. Reclining-chair.....	July 18, 1871
121,090	Donohoo, Patrick M., Saint Rose, Wis. Binders' table for harvesters.....	Nov. 21, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,795	Doolittle, George, and John S. Follansbee. (<i>See Follansbee & Doolittle.</i>) Doolittle, Merritt E., assignor to Earth-Closet Company, Hartford, Conn. Earth-closet	Sept. 12, 1871
118,115	Doran, David C., Mount Healthy, Ohio. Double-perch and fifth-wheel for carriages	Aug. 15, 1871
117,522	Doran, Frank C., and Benjamin F. Sortman, Knightstown, Ind. Water-wheel	Aug. 1, 1871
111,917	Doremus, Edward P., Washington, La. Fanning-machine	Feb. 21, 1871
119,267	Dorn, Frederick W., New York, N. Y. Process of utilizing tanners' clippings	Sept. 26, 1871
115,587	Dorn, Rufus H., Port Henry, N. Y. Circular cutter	June 6, 1871
121,598	Dorn, William, and Jacob Speaker. (<i>See Speaker & Dorn.</i>) Dorr, Oscar L., South Walpole, Mass. Washing-machine	Dec. 5, 1871
	Dorris, Benjamin F. (<i>See Wand, Edward, assignor.</i>) Dorsett, Folsom, and George A. Mariner. (<i>See Mariner & Dorsett.</i>) Doscher & Co. (<i>See Kicherer, Carl R., assignor.</i>)	
119,332	D'Ossone, Freeman, Philadelphia, Pa. Slate	Sept. 26, 1871
121,044	Dotch, Julius Edmund, Washington, D. C. Composition for soap. (Antedated Nov. 4, 1871)	Nov. 21, 1871
115,449	Dotterer, Davis Henry, Philadelphia, Pa. Axle-box. (Antedated May 18, 1871)	May 30, 1871
118,701	Dotterer, Davis H., assignor to self, M. S. Gilbert, and M. D. Buchanan, Philadelphia, Pa. Car-axle box	Sept. 5, 1871
115,450	Doty, Ellis, Janesville, Wis. Tackle-block	May 30, 1871
119,831	Doty, Ellis, and George W. Miltimore, Janesville, Wis. Railway-car axle	Oct. 10, 1871
121,498	Doty, George W., Wooster, Ohio. Knuckle-protector for washing clothes	Dec. 5, 1871
	Doty, Henry F., <i>et al.</i> (<i>See Brown, George A., assignor.</i>) Doty, William, Circleville, Ohio. Steam-flue cleaner	Aug. 29, 1871
118,596	Doty, William H. H., Sonora, Ohio. Plow	Dec. 26, 1871
122,162	Dotzenroth, Heinrich, Pittsburgh, Pa. Reversible latch	Jan. 3, 1871
110,637	Doubleday, Robert D. (<i>See Davis, Biram C., assignor.</i>) Doubler, John W. H., assignor to self and William Logne, Darlington, Wis.	
116,571	Same.....Combination lock	May 23, 1871
120,422	Same.....Swivel rocking-chair	July 4, 1871
111,918	Same.....Rocking-chair	Oct. 31, 1871
	Douden, Edwin, assignor to self and Charles Broome, Lykens, Pa. Lubricator for wheels, pulleys, and journals	Feb. 21, 1871
114,422	Dougherty, James, Philadelphia, Pa. Cupola-furnace	May 2, 1871
	Doughty, John W. (<i>See Morehouse, Clark, assignor.</i>)	
113,640	Douglas, Charles B., Montgomery, Ala. Cotton-chopper	April 11, 1871
115,942	Douglas, Charles H., assignor to William A. English, Hartford, Conn. Lifting-apparatus	June 13, 1871
121,934	Douglass, Thomas, Warren, Ohio. Head-block	Dec. 19, 1871
	Douglass, W. and B. (<i>See Brown, Addison P., assignor.</i>) Douglass, William B., assignor to Frederick Baumgartner, Brooklyn, N. Y. Carriage-curtain knob	Feb. 7, 1871
4,351	Dourson, Jacob, Columbus, Ohio. Fall-leaf extension-table. (Reissue)	April 25, 1871
111,439	Douty, Grafton, Columbus, Ohio. Seal for dip-pipes in gas-works	Jan. 31, 1871
111,440	Same.....same	Jan. 31, 1871
113,751	Dovell, Louis, Newark, N. J. Bottle-stopper	April 18, 1871
5,234	Same.....Mucilage-bottle (Design)	Aug. 29, 1871
120,950	Dow, George H., Freeport, Ill. Field-roller	Nov. 14, 1871
4,748	Dow, Orrin C., and Alford C. Harvey, Saint Johnsbury, Vt. Telegraphers' badge-pin (Design)	April 4, 1871
114,654	Dowell, Asa B., Vinton, Iowa. Trace-fastener	May 9, 1871
117,752	Dowling, George E., and Salmon F. Cone, Montague, Mich. Rafting-dog	Aug. 8, 1871
115,179	Dowling, Robert H., assignor to self and Charles Winslow Fenton, Mich. Chuck for lathes	May 23, 1871
120,726	Dowling, Robert H., Fenton, Mich., and Elkanah S. Perry, Clay Lick, Ohio. Car-coupling	Nov. 7, 1871
	Down, William H., and Roderick F. Clow. (<i>See Clow & Down.</i>) Downes, Harrison, New York, N. Y. Automatic attachment for keyed musical instruments	May 30, 1871
120,727	Downes, John, England. Metallic band for baling cotton, &c.	Nov. 7, 1871
112,228	Downing, John, and John T. Mygatt. (<i>See Mygatt & Downing.</i>) Downing, William, and William H. Soley, assignors to Westford Warner, Philadelphia, Pa. Mortising-machine	Feb. 28, 1871
	Dowus & Bassett. (<i>See Bray, Morris P., assignor.</i>) Downs, William H., Jeffersonville, Ind. Bed and table fan	Sept. 19, 1871
119,128	Doyen, Erasmus P., Portland, Me. Steam-generator	June 20, 1871
122,000	Same.....Steam-radiator	Dec. 19, 1871
	Doyen, Erasmus P., and Samuel W. Emery. (<i>See Emery & Doyen.</i>) Doyle, Francis P., assignor to self and John Cooke, New York, N. Y. Reflector	Feb. 21, 1871
111,919	Doyle, John, assignor to self and Anthony Reybold, Baltimore, Md. Feed-water pipe	Jan. 3, 1871
4,345	Same.....Feed-water pipe (Division A, reissue)	April 18, 1871
4,346	Same.....same (Division B, reissue)	April 18, 1871
115,038	Doyle, Michael V., and Jacob Behel, Rockford, Ill. Door-stop. (Antedated May 10, 1871)	May 23, 1871
119,454	Doyle, Morris, Baltimore, Md. Water-gauge for steam-boilers	Oct. 3, 1871
116,572	Doyle, Patrick, New Comerstown, Ohio. Steam-pumping engine	July 4, 1871
4,359	Doyle, William, Albany, N. Y. Combined stove-lid and damper. (Reissue)	May 2, 1871
117,996	Same.....Base-burning stove	Aug. 15, 1871
120,811	Same.....same	Nov. 14, 1871
121,236	Same.....Stove-grate	Nov. 23, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,823	Drake, Ellis, assignor to self and John S. Smith, Stoughton, Mass. Shell-fuse... Drake, Henry, <i>et al.</i> (See Hinsdell, Drake & Way.)	Feb. 14, 1871
4,790	Drake, Sereno A., and Ira Almy. (See Almy & Drake.)	
116,419	Drake, Thomas, Cincinnati, Ohio. Hinge..... (Design)...	April 11, 1871
112,562	Drane, James H., and Leonard, Eminence, Ky. Dining-table.....	June 27, 1871
119,082	Draper, Daniel A., Cambridge, Mass. Process of manufacturing type-blocks....	Mar. 14, 1871
	Draper, Franklin N., and Aaron Danison, West Liberty, Ohio. Carriage-wheel.	Sept. 19, 1871
	Draper, Gamaliel B., and Linneus H. Stanley. (See Stanley & Draper.)	
111,523	Draper, George, Hopedale, Mass. Machine for warping yarn.....	Feb. 7, 1871
111,824	Same..... Railway-alarm.....	Feb. 14, 1871
113,752	Same..... Drawing-frame.....	April 18, 1871
114,536	Same..... Spindle-step.....	May 9, 1871
116,168	Same..... Device for holding spinning-bobbins on spindles.....	June 20, 1871
	Same..... (See Westcott, Asa A., assignor.)	
	Draper, George, & Son. (See Rouse, Wanton, assignor.)	
	Same..... (See Carroll, William F., assignor.)	
	Draper, George, and George William Knight. (See Knight & Draper.)	
119,083	Draper, Henry V. P., assignor to James H. McConnell, Hannibal, Mo. Material for the manufacture of textile fabrics.....	Sept. 19, 1871
119,084	Draper, Henry V. P., assignor to self, Frank Holtzclaw, John W. Hickman, Andrew B. Hopkins, and Samuel S. Boyd, Hannibal, Mo. Material for the manufacture of paper-pulp.....	Sept. 19, 1871
115,719	Draper, James O., Pawtucket, R. I. Composition or soap for cleansing the teeth.	June 6, 1871
112,131	Draper, Joel E., assignor to self and Robert Dunlap, 1st, South Lyons, Mich. Corn-husking bench.....	Feb. 28, 1871
115,287	Draper, Robert E., Sacramento, Cal. Machine for producing stereotype matrices	May 30, 1871
116,820	Draper, Tronson, Petrolia, Canada. Oil-pump valve.....	July 11, 1871
4,722	Draper, Virgil, assignor to Oscar M. Draper, Attleborough, Mass. Ornamental chain-link..... (Design)...	Mar. 21, 1871
4,723	Same..... Ornamental chain-link..... (Design)...	Mar. 21, 1871
4,749	Same..... Chain-link..... (Design)...	April 4, 1871
4,857	Same..... same..... (Design)...	May 2, 1871
7,333	Draper, William W., Greenfield, Mass. Tool-holder..... (Reissue)...	April 11, 1871
	Drayton, Benjamin A., and George R. Osborn. (See Osborn & Drayton.) (Two cases.)	
116,694	Dreeson, Barthold J., and James L. Buskett, Saint Louis, Mo. Cotton-picker..	July 4, 1871
116,695	Drescher, Luis, New York, N. Y. Electro-medical apparatus.....	July 4, 1871
117,057	Same..... Galvanic battery.....	July 18, 1871
5,330	Dresser, Christopher, assignor to Joseph Wild & Co., England. Printed carpet..... (Design)...	Oct. 31, 1871
116,279	Drevet, Ernest, New York, N. Y. Drier.....	June 27, 1871
	Drew, Charles H., and Francis T. Morton. (See Wright, Benjamin F., assignor.)	
118,176	Drew, Emanuel S., New Orleans, La. Steering-apparatus.....	Aug. 15, 1871
112,563	Drew, Henry J., Dixon, Ill. Magazine-gun.....	Mar. 14, 1871
112,564	Same..... Repeating fire-arm.....	Mar. 14, 1871
121,281	Drew, Hiram C., Jamestown Center, Mich. Mode of fastening horse-powers. (Antedated Nov. 24, 1871).....	Nov. 23, 1871
	Drew, William H., <i>et al.</i> (See Paradis, Joseph, assignor.)	
	Drewer, Henry, and Thomas Atkins. (See Atkins & Drewer.)	
	Drexel, Herman C., <i>et al.</i> (See Klingenberg, Adolph, assignor.)	
111,621	Dreyfus, Isidore, New York, N. Y. Valve and cock.....	Feb. 7, 1871
120,187	Driggs, Elliott F., Brooklyn, N. Y. Buckle.....	Oct. 24, 1871
117,753	Dripps, Isaac, Altoona, Pa. Railway-journal box.....	Aug. 8, 1871
	Driscoll, Jeremiah W., and William G. Schmidlin. (See Schmidlin & Driscoll.)	
111,524	Drott, Henry W., Cumberland, Md. Sash-holder.....	Feb. 7, 1871
110,907	Drown, Thomas M., assignor to W. A. Drown, Philadelphia, Pa. Apparatus for dyeing fabrics.....	Jan. 10, 1871
	Drown, William A., & Co. (See Tate, William John, assignor.)	
115,720	Drown, William A., jr., Philadelphia, Pa. Umbrella.....	June 6, 1871
	Drown, William A., jr., and Edward Evans. (See Plumb, Hiram, assignor.)	
	Droxel, John. (See Keffer, Peter, assignor.)	
114,537	Drum, John H., Bethel, Mich. Combined spool-stand and button-box.....	May 9, 1871
113,753	Drummond, James T., Mount Pleasant, Iowa. Fence.....	April 18, 1871
4,687	Drury, Cassius M., Granby, N. Y. Window-sash holder..... (Design)...	Feb. 28, 1871
119,697	Drury, Charles H., assignor of one-half interest to Isaac F. Spencer, Osceola, Ill. Harness for harness.....	Oct. 10, 1871
110,836	Dryden, William A., assignor to self and John M. Turnbull, Monmouth, Ill. Cultivator.....	Jan. 10, 1871
4,252	Dryden, W. A. and C. E., assignors to Augustus Adams, Monmouth, Ill. Cul- tivator..... (Reissue)...	Feb. 7, 1871
115,180	Du Bois, Ithamar, Brooklyn, N. Y. Tailors' measure.....	May 23, 1871
117,058	Du Bois, John, Greensborough, Ala. Cotton-gin.....	July 18, 1871
113,276	Dubois, Otto, Fall River, Mass. Lithographic printing.....	April 4, 1871
114,655	Dubrul, Napoleon, Joliet, Ill. Cigar-mold.....	May 9, 1871
114,932	Same..... same.....	May 16, 1871
	Same..... (See Fitch, Lewis R., assignor.)	
	Dubrul, Napoleon, and James Miller. (See Miller & Dubrul.)	
	Dubrul, Napoleon, and Emery E. Hardy. (See Hardy and Dubrul.)	
112,431	Dubs, Henry, and Sampson George Goodall Copestake, Great Britain. Coup- ling for railway-cars.....	Mar. 7, 1871
111,184	Duchemin, Peter F., Somerville, Mass. Removable car-seat back.....	Jan. 24, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,280	Duchenin, Watson, Charlottetown, Prince Edward Island. Egg-carrier	June 27, 1871
121,237	Duchemin, William, assignor through mesne assignments to George B. Bigelow, trustee, Boston, Mass. Sewing-machine for boots and shoes.	Nov. 28, 1871
4,267	Duck, John H., and Elias K. Whitcomb; said Whitcomb assignor to James T. Whipple, Elgin, Ill. Pipe and fixture for wells. (Reissue) ..	Feb. 21, 1871
	Duckworth, Martin H. (See Stevenson, Charles J., assignor.)	
	Dudin, Celestin and Edouard, <i>et al.</i> (See Desumeur, Dudin & Delacourt.)	
	Dudley, Charles S., and Aaron R. Armstrong. (See Armstrong & Dudley.)	
	Dudley, Davis A. and Edward D. (See Witherell, Loren R., assignor.)	
	Dudley, George D., and Cyrus H. Latham. (See Latham & Dudley.)	
5,411	Dudley, George D., and Daniel Sherwood. (See Sherwood & Dudley.) (Design.)	
	Dudley, George D., assignor to Edward P. Woods, Daniel Sherwood, and Cyrus H. Latham, Lowell, Mass. Three-bottle caster. (Design) ..	Dec. 12, 1871
	Dudley, Joseph, <i>et al.</i> (See Dewey, Dudley & Lindemann.)	
112,229	Dudley, Richard, and Benjamin Hershey, Erie, Pa. Railway-car spring.	Feb. 28, 1871
	Same. (See Hershey & Dudley.)	
	Dudley, Richard, <i>et al.</i> (See Hershey, Benjamin, assignor.)	
	Same. (See Hershey & Gaggin, assignors.)	
	Same. (See Hershey, Benjamin, assignor) (Two cases.)	
	Dudley, Uriah H. (See Gulden, Jacob, assignor.)	
	Dueberg, Helmuth, and Gustavus A. Wedekind. (See Wedekind & Dueberg.)	
	Duell, Edgar, and John Yates. (See Yates & Duell.)	
117,268	Duerden, Lawrence L., Brooklyn, N. Y. Electro-magnetic instrument.	July 25, 1871
120,951	Duerre, George, Williamsburgh, N. Y. Hoisting-gear.	Nov. 14, 1871
116,420	Duff, James, Peoria, Ill. Punching-machine.	June 27, 1871
4,502	Duff, James, assignor to self and E. B. Pierce, Peoria, Ill. Self-lubricating journal-box. (Reissue) ..	Aug. 8, 1871
118,848	Duff, James, Henry Roberts, and Gilbert D. Nourse, assignors to L. G. Pratt & Co., Peoria, Ill. Manufacture of plow land-sides.	Sept. 12, 1871
4,877	Duff, John T., assignor to self, John T. Greer, and David H. Chambers, Pittsburgh, Pa. Child's toy. (Design) ..	May 9, 1871
114,423	Duff, Robert, assignor to Ernest Greenfield and Philip Strauss, New York, N. Y. Machine for mixing paste for confectionery, &c.	May 2, 1871
115,039	Same. Machine for making and breaking confectioners' paste and other materials.	May 23, 1871
114,275	Duffee, Edward, assignor to American Gas-Screen Manufacturing Company, Haverhill, Mass. Dry-gas purifier.	May 2, 1871
121,764	Duffee, Edward, Haverhill, Mass. Screen for coal-gas purifiers.	Dec. 12, 1871
113,862	Duffett, William H., Rochester, N. Y. Dish-rack.	April 18, 1871
118,116	Same. Hydrant.	Aug. 15, 1871
122,111	Duffy, James F., assignor to self and George C. Tobius, Chicago, Ill. Spring for upholstery purposes. (Antedated Dec. 9, 1871) ..	Dec. 26, 1871
112,327	Dufour, Joseph W., Stratford, Conn. Sewing-machine.	Mar. 7, 1871
	Dufur, George J. (See Baggott, Thomas, assignor.)	
118,702	Dugan, Rus W., and Benjamin F. Clark, Cairo, Ill. Steam-generator.	Sept. 5, 1871
113,505	Dugan, William, Chicago, Ill. Preserving and transporting fresh meat.	April 11, 1871
118,439	Dugaune, A. J. H., New York, N. Y. Printers' column-rule.	Aug. 29, 1871
114,276	Du Laney, George L., New York, N. Y. Tuck-marker for sewing-machines.	May 2, 1871
114,424	Same. Sewing-machine.	May 2, 1871
118,703	Dummer, Edward, Newbury, Mass. Device for reducing friction on rollers and bearings.	Sept. 5, 1871
	Dummer, Paul, and Peter E. Malmstrom. (See Malmstrom & Dummer.)	
118,704	Dunp, Jacob, Kingston, Ohio. Metallic hub for vehicles.	Sept. 5, 1871
112,791	Dunaway, Elijah F., Cincinnati, Ohio. Blind-wiring machine.	Mar. 21, 1871
115,040	Same. Handle-fastening for brooms, brushes, &c.	May 23, 1871
117,392	Same. Spring seat for wheeled vehicles.	July 25, 1871
118,351	Same. Spring-bedstead.	Aug. 22, 1871
118,352	Same. same.	Aug. 22, 1871
119,585	Dunbar, Alexander, Woodstock, Canada. Horse-collar and hames.	Oct. 3, 1871
119,455	Dunbar, George S., Pittsfield, Mass. Apparatus for extinguishing street gas-lamps.	Oct. 3, 1871
	Dunbar, William B., and Alonzo W. Cram. (See Cram & Dunbar.)	
4,422	Dunbrack, Charles S., assignor of one-third interest to William N. Spinney, Swampscott, Mass. Boot and shoe. (Reissue) ..	June 13, 1871
	Duncan, Francis M., and George W. Cook. (See Cook & Duncan.)	
118,117	Duncan, Frank Harper, Evansville, Ind. Caster for sewing-machine.	Aug. 15, 1871
115,831	Duncan, Nancy, Beaver Falls, Pa. Cooking-stove.	June 13, 1871
	Duncan, Richard B. (See Barber, Joseph, assignor.)	
115,041	Duncan, Thomas, Brookville, Md. Inkstand.	May 23, 1871
117,713	Duncan, William, assignor to self and Calvin C. Rowell, Lebanon, N. H. Electro-magnetic safe-protector.	Aug. 1, 1871
119,748	Duncanson, Ethelbert E., Chicago, Ill. Inhaler and vaporizer for administering anæsthetics.	Oct. 10, 1871
113,641	Dunham, David A., Pilatka, Fla. Ship-pump.	April 11, 1871
4,454	Dunham, Isaac A., North Bridgewater, Mass. Edge-plane for shoemakers. (Reissue) ..	July 4, 1871
	Same. Edge-plane for shoemakers. (Extension) ..	Sept. 7, 1871
117,393	Dunham, John B., East Chester, N. Y. Prepared wood sounding-board for pianos.	July 25, 1871
112,132	Dunham, Lemuel, Lincoln Centre, Me. Cooking-stove.	Feb. 23, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,465	Dunham, William H., Hokah, Minn., and James Widney, Allegheny, Minn., assignors of part interest to Samuel P. Ross. Car-brake. (Division A, reissue).	July 11, 1871
4,466	Same.....Car-brake shoe..... (Division B, reissue) ..	July 11, 1871
114,115	Dunkerly, Walter, Woonsocket, R. I. Forge-bonnet	April 25, 1871
112,908	Dunklee, Benn F., Concord, N. H. Circular-saw bench	Mar. 21, 1871
	Dunlap, Robert, 1st. (See Draper, Joel E., assignor.)	
120,507	Dunlevy, Andrew W., Fair Play, Ohio. Walking-planter	Oct. 31, 1871
121,282	Dunn, Edward H., Portland, Me. Saddle-tree	Nov. 23, 1871
119,333	Dunn, George R., Newark, N. J. Seal-locking bolt	Sept. 26, 1871
	Dunn, Jephtha W. (See Bishop, Peter V. W., assignor.)	
119,334	Dunn, John M., Erin, Miss. Excavator	Sept. 26, 1871
	Dunn, Joseph B., et al. (See Marable, Thomas E., assignor.)	
122,236	Dunn, Leonard F., Oneida, N. Y. Thread-measuring apparatus	Dec. 26, 1871
	Dunn, Samuel W. (See Pierpont, Charles L., assignor.) (Five cases.) (Design.)	
	Same.....(See Meyer, Victor E., assignor)..... (Design.)	
111,111	Dunn, William Wallace, San Francisco, Cal. Type-casting machine.....	Jan. 24, 1871
113,277	Dunne, John W., New York, N. Y. Ceiling for stages	April 4, 1871
113,988	Dunning, James, Bangor, Me. Watchman's time-detector.....	April 25, 1871
119,016	Same.....Ice-preserver.....	Sept. 19, 1871
118,220	Dunseith, James, New York, N. Y. Fire-proof floor	Aug. 22, 1871
4,625	Dunton, Marlin A., and Charles T. Merry. (See Merry & Dunton.)	
	Dunworth, James A. and Frank, assignors to Vidvard & Sheehan, New York, N. Y. Liquor-holder	Feb. 7, 1871
	Same.....(Design).....	Feb. 14, 1871
111,825	Dupas, Antoine Ernest, New Orleans, La. Gas-burner	Mar. 28, 1871
113,147	Dupas, Antoine Ernest, and Arthur Barbarin, New Orleans, La. Carbureting-machine.....	Oct. 3, 1871
5,297	Dupuy, Marcellin, New York, N. Y. Wire-fence..... (Design) ..	Oct. 10, 1871
119,832	Durand, John, Columbus, Ohio. Smoke-consuming apparatus for fire-boxes.....	
	Same.....(See Setchel, John H., assignor.)	
	Durband, Charles H. (See Cockrill, William A., assignor.)	
4,395	Durborow, John C., Ellicott City, Md. Harvester-rake..... (Reissue) ..	May 23, 1871
112,792	Durfee, William F., assignor to self and Jackson & Wiley, Bridgeport, Conn. Balancing vertical reciprocating masses.....	Mar. 21, 1871
114,277	Durfee, Zoheth S., Cincinnati, Ohio. Manufacture of iron and steel.....	May 2, 1871
118,597	Same.....New York, N. Y. Method of refining cast-iron and making castings	Aug. 29, 1871
	Same.....(See Mushet & Mushet, assignors.)	
5,200	Durgin, Charles A., East Andover, N. H. Corner-piece for looms.... (Design) ..	Aug. 15, 1871
5,071	Durgin, William B., Concord, N. H. Spoon or fork handle..... (Design) ..	July 4, 1871
121,599	Durham, Nephthali A., Duquoin, Ill. Dental forceps	Dec. 5, 1871
121,858	Same.....same.....	Dec. 12, 1871
114,116	Durnell, Milton, and Wesley Milner, Leesburgh, Ohio. Doubletree.....	April 25, 1871
115,451	Durrell, John N., Dunkirk, N. Y. Machine for tapping nuts.....	May 30, 1871
	Duryea, Sanford, and Edward F. Walsh. (See Walsh & Duryea.)	
115,721	Dustin, Francis W., Saint Louis, Mo. Washing-machine	June 6, 1871
113,278	Dutcher, Josiah J., assignor to Godfrey W. Dutcher, New Haven, Conn. Eel-trap for water-pipes	April 4, 1871
119,749	Dutemple, William R., assignor to self and I. M. Hopkins, Providence, R. I. Stud or button.....	Oct. 10, 1871
120,049	Dutton, George W., assignor to self and John Ashton, Tomales, Cal. Harness.....	Oct. 17, 1871
112,565	Duval, Joseph, La Prairie, Canada. Breech-loading fire-arm	Mar. 14, 1871
112,909	Duvall, William T., Georgetown, D. C. Adjustable mill-feed.....	Mar. 21, 1871
116,281	Same.....Propulsion of canal-boats	June 27, 1871
121,859	Duxon, George and Henry, Brooklyn, N. Y., and Henry Perry, Newark, N. J. Manufacture of japanned or enameled horse-collars	Dec. 12, 1871
112,432	Dwyer, Patrick J., Elizabethport, N. J. Tobacco-pipe	Mar. 7, 1871
121,238	Dyckman, Aaron S., South Haven, Mich. Cover for fruit-baskets.....	Nov. 28, 1871
114,538	Dye, Alexander M., Elkhart City, Ill. Uterine and prolapsus ani supporter.....	May 9, 1871
	Dyer, A. S., and Johnson M. Quimby. (See Quimby & Dyer.)	
114,441	Dyer, Elisha, jr., Providence, R. I. Lubricating compound	Jan. 31, 1871
122,237	Dyer, George E., New Sharon, Maine. Stump-extractor	Dec. 26, 1871
113,642	Dyer, Isaac T., Macon, Ga. Mold-board for plows	April 11, 1871
	Dyer, Jacob. (See Good, Jacob L., assignor.)	
114,278	Dyer, Stephen P., Ankeny Town, Ohio. Evaporator	May 2, 1871
116,573	Dyott, Michael B., Philadelphia, Pa. Vapor-burner.....	July 4, 1871
119,920	Same.....Lantern.....	Oct. 17, 1871
117,523	Dyson, John, Philadelphia, Pa. Shuttle drop-box mechanism.....	Aug. 1, 1871
112,230	Eads, James B., Saint Louis, Mo. Operating ordnance.....	Feb. 28, 1871
115,181	Same.....Gun-carriage	May 23, 1871
4,471	Same.....same..... (Division A, reissue) ..	July 18, 1871
4,472	Same.....same..... (Division B, reissue) ..	July 18, 1871
118,118	Same.....Caissons for sinking piers	Aug. 15, 1871
117,394	Eads, James B., and Henry Flad, Saint Louis, Mo. Pressure-gauge.....	July 25, 1871
	Same.....(See Flad & Eads.)	
115,832	Eager, George R., Boston, Mass. Pantaloons.....	June 13, 1871
	Eagle Lock Company. (See Terry & Hunter, assignors.)	
	Eagle Square Company. (See Millington, Norman, assignor.) (Two cases.) (Reissue)	
122,001	Eagleton, J. J., deceased, by Sarah N. Eagleton, administratrix, assignor to Eagleton Manufacturing Company, New York, N. Y. Japanned furniture spring.....	Dec. 19, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,295	Eames, Horace N., assignor to Hiram R. Olmstead and Richard W. Jones, Syracuse, N. Y. Harness-ring (Reissue).....	Mar. 14, 1871
117,754	Eames, William T., assignor to Leonard J. Haas, New York, N. Y. Ice-pick...	Aug. 8, 1871
120,633	Earing, William L., Oswego, N. Y. Saw	Nov. 7, 1871
116,696	Earl, Henry W., Baltimore, Md. Car-coupling	July 4, 1871
118,521	Earl, William, <i>et al.</i> (See Smith, Roswell T., assignor)..... (Reissue.)	Aug. 29, 1871
4,503	Earle, Charles H., De Pere, Wis. Chimney-stop	Aug. 8, 1871
4,504	Earle, John E., assignor through mesne assignments to Peter R. Carrl, New Haven, Conn. Clothes-frame..... (Division A, reissue)...	Aug. 8, 1871
120,423	Earlywine, Nathan, assignor to self and Charles A. Davis, Centreville, Iowa. Walking-planter	Oct. 31, 1871
117,997	Earnest, William H., assignor to Richard P. Steed, Parkersburgh, W. Va. Scrubber and mop-head.....	Aug. 15, 1871
117,395	Earth-Closet Company. (See Monle & Bannehr, assignors.)	July 25, 1871
114,425	Same..... (See Doolittle, Merritt, assignor.)	May 2, 1871
113,643	Easley, Elbridge V., Johnson City, Tenn. Flour-bolt	April 11, 1871
112,433	East, Samuel, Memphis, Mich. Machine for dressing millstones	Mar. 7, 1871
114,539	Easterly, James, assignor to self and James Gray, Albany, N. Y. Cooking-stove	June 5, 1871
118,440	Eastman, Albert P., Washington, D. C. Basket for house-plants	May 9, 1871
4,791	Eastman, Joseph L., deceased, by Clara A. Eastman, executrix, Boston, Mass. Steam-pressure gauge..... (Extension)...	Aug. 29, 1871
119,017	Eastman, Peter S., Washington Mills, N. Y. Fifth-wheel for carriages.....	April 11, 1871
116,936	Eastman, Robert, Media, Pa. Composition for soap	Sept. 19, 1871
114,780	Eastman, William W., Meadville, Pa. Flange and crank	July 11, 1871
115,042	Eastman, William W., and William H. H. Morris, Meadville, Pa. Gudgeon for shafts	May 16, 1871
119,224	Eastren, Samuel W., Tremont, N. Y. Combined shears and button-hole cutter.....	May 23, 1871
121,342	Eastwick, Edward P., Baltimore, Md. Kiln for reburning bone-black.....	Sept. 26, 1871
116,169	Eaton, Albert E., Portland, Me. Reversible crib	Nov. 23, 1871
111,442	Eaton, Asahel K., assignor to the Eaton Fire Company, Brooklyn, N. Y. Manufacture of paper-pulp	June 20, 1871
121,765	Eaton, Charles, New York, N. Y. Curtain-fixture	Jan. 31, 1871
110,638	Eaton, Charles B., Grafton, Ill. Railway-car brake.....	Dec. 12, 1871
115,833	Eaton, Daniel E., assignor to self and James S. Hanscom, Boston, Mass. Tube-cutter	Jan. 3, 1871
112,231	Eaton, Daniel E., Boston, Mass. Stamp-canceler	June 13, 1871
116,282	Eaton, Edwin. (See Elliott, Alfred L., assignor.)	Feb. 28, 1871
119,225	Eaton Fire Company. (See Eaton, Asahel K., assignor.)	June 27, 1871
115,834	Eaton, Newbury J. (See Castle, Frederic, assignor.)	Sept. 26, 1871
119,756	Eaton, Richard, Montreal, Canada. Refining petroleum.....	June 13, 1871
117,524	Eaton, Thomas W., Kankakee, Ill. Grain-drier.....	Jan. 5, 1871
115,288	Eaton, William H., <i>et al.</i> (See Burleigh, Nary G., assignor.)	May 30, 1871
4,405	Eayrs, Winslow P., Nashua, N. H. Lozenge-cutting machine.....	May 30, 1871
115,722	Ebbert, John, assignor to self and John Clark, Chicago, Ill. Dredging-machine.....	June 6, 1871
121,600	Eberhardt, Jonas, Conshohocken, Pa. Steam-generator.....	Dec. 5, 1871
120,424	Eberle, Peter, Freetown, Ind. Pruning-saw.....	Oct. 31, 1871
119,335	Eberly, David B., Pine Village, Ind. Cultivator.....	Sept. 26, 1871
113,031	Eccles, James, and Joseph Holding. (See Holding & Eccles.)	July 25, 1871
121,766	Eckert, George, and Charles Brintzinghoffier. (See Brintzinghoffier & Eckert.)	Aug. 1, 1871
113,032	Eddelman, Daniel, Madison, Ind. Cultivator	Mar. 23, 1871
117,396	Eddy, Corse & Co. (See Corse, Albert C., assignor.)	Dec. 12, 1871
117,998	Same..... (See Gass, Robert, assignor.)	Mar. 23, 1871
118,221	Same..... (See Hyde, James B., assignor.)	July 25, 1871
119,586	Same..... (See Corse, Augustus P., assignor.)	Aug. 22, 1871
116,170	Eddy, Forace M. (See Vance, John D., assignor.)..... (Design.)	Oct. 3, 1871
122,002	Eddy, Henry, North Bridgewater, Mass. Crib for horses	June 20, 1871
113,033	Same..... Sewing-machine work-holder	Dec. 19, 1871
114,656	Same..... Crib for horses	Mar. 28, 1871
111,112	Eddy, Robert Henry, assignor to A. G. Eddy, Boston, Mass. Suspender.....	May 9, 1871
	Same	Jan. 24, 1871
	Eddy, William H., <i>et al.</i> (See Sparks, John, assignor.)	
	Edgar, Thomas M., Paris, Tenn. Corn-planter	
	Edgar, William D., Ottawa, Kans. Key-board of musical instruments.....	
	Edge, William Charles, Newark, N. J. Device for piercing and lining ears for the reception of earrings.....	
	Edgecomb, Edward F., Mechanic's Falls, Me. Tool-holder for grinders	
	Edgecomb, Joseph, Newark, N. J. Purchase for capstans	
	Edgerton, Henry H., Fort Wayne, Ind. Shield for naphtha-gas burner.....	
	Same..... Method and apparatus for separating certain hydrocarbon vapors from illuminating gases	
	Same..... Register for gas-meters.....	
	Same..... Gas-retort	
	Edgerton, Joseph W., assignor to self and David J. Moffitt, Thornton, Ind. Flood-gate	
	Edie, David A., Norrisville, Md. Saw-mill	
	Edie, D. A., <i>et al.</i> (See Lawrence, William H., assignor.)	
	Edison, Thomas A., Newark, N. J. Printing-telegraph apparatus	
	Same..... Telegraphic transmitting instrument	
	Edison, Thomas A., assignor to self, Elisha W. Andrews, George B. Field, and Marshall Lefferts, Newark, N. J. Governor for electro-motors.....	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,034	Edison, Thomas A., assignor to the Gold and Stock Telegraph Company, Newark, N. J. Printing-telegraph apparatus	Mar. 28, 1871
114,657	Edison, Thomas A., assignor to self and Marshall Lefferts, Newark, N. J. Relay-magnet for telegraph-instruments	May 9, 1871
114,658	Same..... Electro-magnet for telegraph-instruments	May 9, 1871
121,601	Edison, Thomas A., assignor to self and George Harrington, Newark, N. J. Machinery for perforating paper for telegraphic purposes	Dec. 5, 1871
115,182	Edmonds, George, New Orleans, La. Apparatus for carbureting	May 23, 1871
	Edmonds, Robert M., and McDuff Cohen. (See Cohen & Edmonds.)	
	Edmonson, James H. (See Grader, George W., assignor.)	
118,119	Edmonds, Thomas, Talcott, Va. Plow	Aug. 15, 1871
115,452	Edson, Jacob, Boston, Mass. Driven-well	May 30, 1871
118,222	Edson, Jacob, Boston, Mass., and Person Noyes, Lowell, Mass., assignors to Person Noyes. Pump	Aug. 22, 1871
117,872	Edson, Jarvis B., Brooklyn, N. Y. Safety-valve	Aug. 8, 1871
116,283	Edson, Nathaniel T., New Orleans, La. Rotary steam-generator	June 27, 1871
117,159	Same..... Rotary boiler	July 18, 1871
118,796	Same..... Scroll-sawing machine	Sept. 12, 1871
120,371	Same..... Propulsion of canal-boats	Oct. 31, 1871
116,574	Edward, David, Montreal, Canada. Mop and brush holder	July 4, 1871
111,826	Edwards, Arthur, Cuba, Mo. Corn-planter	Feb. 21, 1871
113,148	Edwards, David, Australia. Cultivator	Mar. 28, 1871
	Edwards, George R. (See Davis & Vermillion, assignors.)	
119,336	Edwards, John C., Cattleville, Mo. Bee-hive	Sept. 26, 1871
111,525	Edwards, Lester P., Hamlington, Pa. Funnel	Feb. 7, 1871
117,999	Edwards, Martin L., Salem, Ohio. Meat-chopper	Aug. 15, 1871
113,989	Edwards, Thomas, England. Condensing steam-engine	April 25, 1871
112,021	Edwards, Wesley, assignor to self, John Holloway, and John F. Snider, Indianapolis, Ind. Implement for driving spokes into hubs of wheels	Feb. 21, 1871
110,837	Edwards, Young L., Trenton, Tenn. Corn-planter	Jan. 10, 1871
122,238	Eells, Frederick, Walton, N. Y. Ladder	Dec. 26, 1871
4,688	Eger, Frederick W., and Henry H. Kunze, Philadelphia, Pa. Bed-quilt. (Design)	Feb. 28, 1871
110,962	Egerton, Charles C., assignor to Samuel E. and Daniel W. Middleton, Washington, D. C. Stamp-canceler	Jan. 17, 1871
114,426	Egery, Marshal J., assignor to self and Thomas N. Egery, Bangor, Me. Saw-mill	May 2, 1871
	Egery, Thomas N. (See Closs, Walter R., assignor) (Reissue.)	
113,863	Eggleston, Asa, Fall River, Mass. Machine for piercing leather	April 18, 1871
117,525	Eggleston, Charles H., Marshall, Mich. Pruning-shears	Aug. 1, 1871
122,112	Same..... Heel for boots and shoes	Dec. 26, 1871
117,160	Eggleston, George W., Monroe County, N. Y. Millstone-curb	July 18, 1871
4,585	Egleston, Leonard, assignor to Runsey & Co., Seneca Falls, N. Y. Pump. (Design)	Jan. 17, 1871
119,751	Ehlin, Erick, San Francisco, Cal. Lubricator	Oct. 10, 1871
117,161	Ehrhardt, Louis H. G., New York, N. Y. Decolorizing raw sugar	July 18, 1871
116,937	Ehrhart, Daniel, Bel Air, Md. Water-wheel	July 11, 1871
121,045	Eickemeyer, Rudolph, New York, N. Y. Felting-machine	Nov. 21, 1871
120,372	Eisele, John, Philadelphia, Pa. Shaft-coupling (Antedated Oct. 14, 1871)	Oct. 31, 1871
121,343	Eisenmann, Nathan, New York, N. Y. Machine for blacking boots and shoes	Nov. 28, 1871
113,279	Eissfeldt, Hermann, and Camille Thumb, Prussia. Purifying animal charcoal	April 4, 1871
112,695	Elam, Willoughby P., Petersburg, Ill. Spring-seat for wagons	Mar. 14, 1871
112,696	Elder, Roscoe G., New York, N. Y. Children's carriage	Mar. 14, 1871
121,344	Same..... Folding-commode	Nov. 28, 1871
121,345	Same..... Library-step and holder for blacking-implements combined	Nov. 28, 1871
119,512	Eldred, Franklin J., Webster, N. Y. Shaving-horse	Oct. 3, 1871
117,526	Eldredge, John V. D., Detroit, Mich. Sewing-machine	Aug. 1, 1871
	Electric Clock and Bell Company. (See Hahl, Augustus, assignor.)	
113,280	Eley, Philip, assignor through mesne assignments to Charles Wallich, George Hicock, and Alexander Young, New York, N. Y. Bolt-heading die	April 4, 1871
114,781	Eley, Philip, assignor to Isaac Cole, New York, N. Y. Spinning-top	May 16, 1871
117,527	Eley, Philip, assignor of one-half interest to Thomas W. Bartholomew, New York, N. Y. Machine for heading bolts	Aug. 1, 1871
110,639	Ellicott, Henry William, Baltimore, Md. Protecting the hearth of furnaces	Jan. 3, 1871
119,018	Elling, Charles, Cleveland, Ohio. Machine for mixing soap	Sept. 19, 1871
111,113	Elliot, Alfred L., assignor to self and Edwin A. Eaton, Boston, Mass. Machine for cutting paper collars	Jan. 24, 1871
111,827	Elliot, William H., New York, N. Y. Magazine for breech-loading fire-arms	Feb. 14, 1871
114,540	Same..... Breech-loading fire-arm	May 9, 1871
118,916	Same..... Cartridge-magazine	Sept. 12, 1871
121,499	Same..... Breech-loading fire-arm	Dec. 5, 1871
	Elliott, Calvin A. (See Morrison, Jacob, assignor.)	
	Elliott, Charles P., and Samuel W. Davis. (See Davis & Elliott.)	
116,284	Elliott, Clark, assignor to self and Nathan Elliott, Woodland, Cal. Vehicle	June 27, 1871
	Elliott, Edmund D., et al. (See Hallowell, Elliott & Blodgett.)	
	Elliott, Frank S., and Hiram S. Harned. (See Harned & Elliott.)	
119,129	Elliott, George, Saint Louis, Mo. Railway-car spring	Sept. 19, 1871
4,411	Elliott, Harrison, assignor through mesne assignments to self, Elijah Smith, and Solomon S. Gray, Boston, Mass. Machine for crozing staves (Reissue)	June 6, 1871
114,279	Elliott, James P., Bridgeport, Conn. Stove-pipe shelf	May 2, 1871
111,821	Elliott, Josiah S., assignor to the Union Stone Company, Boston, Mass. Machine for forming artificial stone	Feb. 21, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,938	Elliott, Lewis, jr., assignor to L. Candee & Co., New Haven, Conn. India-rubber shoe.	July 11, 1871
120,272	Same.....India-rubber shoe.....	Oct. 24, 1871
112,434	Elliott, Milo A., Stratford Hollow, N. H. Sulky-plow.....	Mar. 7, 1871
110,640	Elliott, Robert, Chester, Pa. Loom.....	Jan. 3, 1871
112,566	Same.....Sleigh.....	Mar. 14, 1871
117,528	Elliott, Samuel, Sonora, Cal. Carpet-stretcher.....	Aug. 1, 1871
	Elliott, Theodore C., <i>et al.</i> (See Smith, David M., assignor).....(Two cases.)	
120,812	Elliott, Thomas J., New York, N. Y. Varnish for destroying insect-life.....	Nov. 14, 1871
114,541	Elliott, William R., Troy, Kans. Sash-holder.....	May 9, 1871
114,117	Elliott, William W., Elliott's Mills, Miss. Spark-arrester.....	April 25, 1871
120,050	Ellis, Augustin, Canton, Ind. Hoe.....	Oct. 17, 1871
112,567	Ellis, De Witt C., and George N. Deming, Rochester, N. Y. Cotton-planter.....	Mar. 14, 1871
112,568	Ellis, Edward S., Trenton, N. J. Envelope.....	Mar. 14, 1871
116,575	Same.....Ice-creeper.....	July 4, 1871
115,835	Ellis, Francis M., Galva, Ill. Washing-machine.....	June 13, 1871
116,821	Ellis, Francis Marion, assignor to Joshua Beatty Glenn, Brooklyn, N. Y. Soap	July 11, 1871
112,697	Ellis, George Henry, assignor to Augustus Salem Dimsdale and Edward Bovine Lovell, England. Ladder.....	Mar. 14, 1871
119,921	Ellis, Henry Allyn, assignor to self and George S. Weaver, Greenbush, N. Y. Hemmer for sewing-machines.....	Oct. 17, 1871
121,046	Same.....Albany, N. Y. Hemmer for sewing-machines.....	Nov. 21, 1871
111,329	Ellis, Joel A. H., Springfield, Vt. Compounding liquor for use in vapor-engines	Jan. 31, 1871
111,330	Same.....Stuffing-box for engines.....	Jan. 31, 1871
111,331	Same.....Vapor-generator for vapor-engines.....	Jan. 31, 1871
122,239	Ellis, Marshall M., assignor to self and Frederick R. Ladd, Springfield, Mass. Window casing and sash.....	Dec. 26, 1871
120,728	Ellis, Paschal P., assignor to Charles H. Buck and Wiley S. Wright, Saint Louis, Mo. Cooking-stove.....	Nov. 7, 1871
	Ellis, Seth C., Jersey City, N. J. Machine for cutting tenons on blind-slats. (Extension).....	Feb. 2, 1871
114,542	Same.....Journal-box.....	May 9, 1871
118,000	Ellis, Thomas J., Decatur, Ill. Cultivator.....	Aug. 15, 1871
112,793	Ellis, Willard C., assignor of one-half interest to Rufus A. Russell, Springfield, Mass. Adjustable bevel.....	Mar. 21, 1871
119,694	Ellisdon, Joseph, England. Canopy.....	Oct. 10, 1871
116,171	Ellithorpe, Albert C., Chicago, Ill. Dredging-scoop.....	June 20, 1871
116,172	Same.....Mortar-mixing machine.....	June 20, 1871
112,022	Ells, Benjamin F., Dayton, Ohio. Fruit-drier.....	Feb. 21, 1871
117,755	Ells, George F., assignor to M. G. Goodwin, New York, N. Y. Flexible hand-card	Aug. 8, 1871
111,920	Ells, Josiah W., Pittsburgh, Pa. Cruet-stand.....	Feb. 21, 1871
117,397	Same.....Casting car-wheels.....	July 25, 1871
	Ellsworth, George, and Silas D. Stearns. (See Stearns & Ellsworth.)	
114,118	Ellsworth, Louis H., and Samuel Seabury, Peoria, Ill. Weather-strip.....	April 25, 1871
111,828	Elmer, Samuel, Ashtabula, Ohio. Spool-silk case.....	Feb. 14, 1871
	Elmwood Mining and Manufacturing Company. (See West, Samuel, assignor.)	
	Same.....(See Britton, Walter, assignor.)	
	Else, T. C., <i>et al.</i> (See Foster & Sayler, assignors.)	
113,281	Elson, Julius, Boston, Mass. Watch-regulator.....	April 4, 1871
120,051	Elston, James A., Elston Station, Mo. Sawing-machine.....	Oct. 17, 1871
116,036	Eltinge, Edgar, Kingston, N. Y. Coal-scuttle.....	June 20, 1871
110,908	Eltinge, Edgar, and John C. Brodhead, Kingston, N. Y. Propeller.....	Jan. 10, 1871
113,990	Elward, John H., Polo, Ill. Harvester.....	April 25, 1871
116,697	Elwell, Henry H., assignor to the Norwalk Lock Company, South Norwalk, Conn. Reversible knob-latch.....	July 4, 1871
114,543	Ely, Ellsworth, Lockport, N. Y. Fence.....	May 9, 1871
	Ely, Ellsworth, and Claudius L. Hoag. (See Hoag & Ely.)	
	Ely, Eugene A., and Eugene C. Hopping. (See Hopping & Ely.)	
	Ely, George H., and John A. Topliff. (See Topliff & Ely.)	
	Ely, Matthew. (See Mason, Richard, assignor.)	
	Embossing Company. (See Hyatt, John W., jr., assignor.)	
116,576	Emerson, George D., Calumet, Mich. Water-meter. (Antedated June 20, 1871)...	July 4, 1871
113,991	Emerson, George W., assignor to John R. Barrett, Chicago, Ill. Paper-file.....	April 25, 1871
4,545	Same.....Temporary binder.....(Reissue).....	Sept. 12, 1871
116,285	Emerson, James, Lowell, Mass. Dynamometer.....	June 27, 1871
111,829	Emerson, James E., Trenton, N. J. Gauge for saw-filers.....	Feb. 14, 1871
112,569	Same.....Saw.....	Mar. 14, 1871
113,992	Same.....same.....	April 25, 1871
113,993	Same.....Saw for sawing stone.....	April 25, 1871
116,421	Same.....Saw.....	June 27, 1871
	Emerson, Thomas. (See Mahan, Frank M., assignor.)	
	Emerson, Ralph. (See Stillman, William Warren, assignor).....(Reissue.)	
119,130	Emerson, Richard, Sycamore, Ill. Harvester-rake.....	Sept. 19, 1871
	Emery, Charles E., and James S. Griffith. (See Griffith & Emery.)	
113,409	Emery, James F., assignor to self and James E. Thomson, Buffalo, N. Y. Advertising device.....	April 4, 1871
	Emery, James P., and Wesley C. Carter. (See Carter & Emery.)	
111,622	Emery, Samuel H., jr., and Chauncey H. Castle, Quincy, Ill. Heating-stove....	Feb. 7, 1871
117,613	Emery, Samuel W., and Erasmus P. Doyen, Portland, Me. Steam-generator....	Aug. 1, 1871
	Emery, Silas H. (See Moss, Rees, assignor.)	
120,052	Emilaw, Andrew J., Grand Haven, Mich. Feeding saw-dust to furnaces.....	Oct. 17, 1871

Alphabetical list of patentees for the year ending 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,952	Emmert, John, Dunleith, Ill. Stilt. (Antedated Nov. 6, 1871)	Nov. 14, 1871
116,939	Emmert, Joseph F., Waynesborough, Pa. Universal joint for shaft-coupling	July 11, 1871
	Emmons, James F., and Jay Northrop. (See Northrop & Emmons.)	
119,085	Emory, William H., Ashburnham, Mass. Dish-washer	Sept. 19, 1871
120,253	Endemann, Hermann, New York, N. Y. Apparatus for drying fruit, meat, &c	Oct. 24, 1871
	Enderton, George, and William E. Robbins. (See Robbins & Enderton.)	
119,337	Enslow, Samuel, Blain, Pa. Insect-trap	Sept. 26, 1871
114,782	Engelbrecht, F., Memphis, Tenn. Door-boit	May 16, 1871
	Engelskerchen, Carl, and Orrin L. Gridley. (See Gridley & Engelskerchen.)	
113,994	Engers, Peter, Jefferson Furnace, Pa. Melodeon	April 25, 1871
114,119	England, George A., Ripon, Wis. Pocket fire-escape	April 25, 1871
112,232	England, Lewis C., Philadelphia, Pa. Apparatus for tanning	Feb. 28, 1871
121,500	Englebert, Conneillous, and Joseph S. Von Nieda, Philadelphia, Pa. Ice-pitcher	Dec. 5, 1871
110,909	Engledow, Thomas S., Cedar Falls, Iowa. Bee-hive	Jan. 10, 1871
116,940	English, Francis Marion, Evansville, Ind. Churn	July 11, 1871
121,346	English, James, assignor to self and Jonathan M. Roberts, Syracuse, N. Y. Canal-boat	Nov. 28, 1871
	English, Nathan F., and Charles Rowland. (See Rowland & English.)	
111,922	English, Samuel, assignor to self and James Ostrander, Troy, N. Y. Machine for molding tuyeres	Feb. 21, 1871
	English, William A. (See Douglas, Charles H., assignor.)	
112,570	Ennis, George W., assignor to self and J. P. Ennis, Orange, N. J. Children's crib	Mar. 14, 1871
110,641	Ennis, William, Philadelphia, Pa. Ventilator	Jan. 3, 1871
110,838	Same.....same	Jan. 3, 1871
112,698	Same.....Furnace for treating ores, &c. (Antedated March 7, 1871)	Mar. 14, 1871
121,047	Enos, John M. and Joab, Saint Joseph, Mich. Car-coupling	Nov. 21, 1871
	Enterprise Manufacturing Company. (See Baker, John G., assignor.)	
	Entwistle, Thomas, <i>et al.</i> (See Cummings, Heyes & Entwistle.)	
	Equitable Company—Operative Foundry Company. (See Brayer, Nicholas, assignor)	Dec. 12, 1871
5,412	Erbs, Hermann, and John Barth, Philadelphia, Pa. Shawl. (Design)	May 16, 1871
114,783	Erd, William, New Ulm, Minn. Sleigh-velocipede. (Antedated May 2, 1871)	Feb. 21, 1871
112,023	Ergenzinger, Jacob Joseph Alexander, Atlanta, Ga. Mosquito-net	Mar. 28, 1871
113,035	Erkson, Garrett, Brooklyn, N. Y. Flower-stand	
	Ernest, Anthony, and Humphreys Joyce. (See Joyce & Ernest.)	Nov. 28, 1871
121,347	Ernsberger, Andrew M., Danville, Ill. Bulletin-board	May 23, 1871
115,183	Erpelding, Nicholas and John, Chicago, Ill. Folding-box	June 13, 1871
4,423	Erskine, Massena B., Racine, Wis. Mounted horse-power (Reissue)	
5,348	Ervein, John A., assignor to self and Benjamin R. Myers, Philadelphia, Pa. Tongs for coals, &c (Design)	Nov. 7, 1871
119,587	Erwin, Charles M., Winona, Miss. Mounted horse-power	Oct. 3, 1871
113,282	Erwin, James B., Pittsburgh, Pa. Gate	April 4, 1871
119,588	Escudier, Charles, Iberia Parish, La. Cultivator	Oct. 3, 1871
119,338	Eshleman, John P., West Salem, Ohio. Washing-machine	Sept. 26, 1871
116,822	Eskildson, Henry W., Boston, Mass. Carpet-protector	July 11, 1871
112,910	Essex, Henry, Meadville, Pa. Locked cock	Mar. 21, 1871
116,286	Essex, James J., Newport, R. I. Atomizer	June 27, 1871
119,589	Estabrook, Edward M., New York, N. Y. Tension-regulator for sewing-machines	Oct. 3, 1871
	Este, George P. (See Cabell, Samuel G., assignor.)	Oct. 10, 1871
119,833	Estell, Samuel F., Chicago, Ill. Programme-clock	Mar. 16, 1871
	Esterly, George, Whitewater, Wis. Harvesting-machine (Extension)	
	Esterly, George and George W. (See Van De Water, Joseph, assignor.)	Feb. 28, 1871
4,279	Estes, Philip, Leavenworth, Kans. Steam-engine (Reissue)	May 2, 1871
114,427	Same.....Piston-packing	
	Estey, J. & Co. (See Fuller, Levi K., assignor) (Five cases.)	
121,348	Estill, James L., assignor to self and Daniel Koll, Salem, Ohio. Nut-locking device	Nov. 28, 1871
5,104	Ettinger, William, New York, N. Y. Muff (Design)	July 11, 1871
118,917	Euler, Conrad, Evansville, Ind. Bottle-washing machine	Sept. 12, 1871
	Eunson, Robert G., and John Myers. (See Myers & Eunson.) (Three cases.) (Disclaimer.)	
4,342	Eureka Mower and Reaper Manufacturing Company. (See Wilber, John D., assignor)	
4,958	Evans, Benjamin D., assignor to John W. Baker, Columbus, Ohio. Combined vapor-burner and lamp-post (Reissue)	April 18, 1871
4,959	Evans, Caleb B., John Carlisle, and Grant H. Burrows, Cincinnati, Ohio. Iron mantel (Design)	May 30, 1871
4,960	Same.....Iron mantel (Design)	May 30, 1871
4,961	Same.....same (Design)	May 30, 1871
121,860	Same.....same (Design)	Dec. 12, 1871
122,240	Evans, David, England. Papering or putting up needles	Dec. 26, 1871
112,328	Evans, David Zimmerman, Town Point, Md. Cultivator	Mar. 7, 1871
121,935	Evans, Edward, North Tonawanda, N. Y. Steam-boiler	Dec. 19, 1871
	Same.....Steam-engine	
	Evans, Edward, and William A. Drown, jr. (See Plumb, Hiram, assignor.)	
119,019	Evans, Ezra E., and Charles A. Beard. (See Beard & Evans.)	Sept. 19, 1871
117,162	Evans, George T., Norway, Me. Clipping-shears	
	Evans, George R., Virginia City, Nevada. Apparatus for saving gold-amalgam, &c.	July 18, 1871
119,339	Evans, Henry James, Quebec, Canada. Combination wheelbarrow and step-ladder	Sept. 26, 1871
118,223	Evans, Henry S., West Chester, Pa. Automatic railway-signal	Aug. 22, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,729	Evans, John, and Christopher Meyer. (<i>See Meyer & Evans.</i>)	
112,571	Evans, Lewis J., Binghamton, N. Y. Door-bolt	Nov. 7, 1871
113,410	Evans, Nathaniel, jr., Boston, Mass. Paper collar	Mar. 14, 1871
119,590	Evans, Thomas A. E., Albany, Ga. Horse-power	April 4, 1871
	Evans, Thomas E., William R. Thomas, and Joshua Hunt, Catsauqua, Pa. Valve-gear	
113,149	Evans, Thomas R., Philadelphia, Pa. Shoe and over-gaiter	Oct. 3, 1871
119,131	Same..... Boot and shoe tree	Mar. 28, 1871
121,501	Evans, Thomas R., Blacksburg, Va. Broom	Sept. 19, 1871
119,020	Evans, Warren R., Thomaston, Me. Gun-lock	Dec. 5, 1871
115,289	Evans, William J., New York, N. Y. Revolving urn-stand	Sept. 19, 1871
121,091	Same..... Revolving urn and spice stand	May 30, 1871
	Evans, William M. (<i>See Brown, William, assignor.</i>)	Nov. 21, 1871
118,918	Evans, William R., Philadelphia, Pa. Portable cradle	
110,642	Evarts, Harry H., Chicago, Ill. Dovetailing-machine	Sept. 12, 1871
111,830	Same..... Traveling-trunk	Jan. 3, 1871
113,506	Evarts, John N., and Pietro Cinquini, assignors to Bradley & Hubbard, West Meriden, Conn. Drawer pull label-holder	Feb. 14, 1871
115,943	Evenenden, John G., Chicago, Ill. Sheet-metal can	April 11, 1871
5,022	Same..... Wood-incased can	June 13, 1871
5,023	Same..... same	June 20, 1871
117,059	Evens, Julian T., assignor to self, William H. Meyer, and Adolph Rederer, Saint Louis, Mo. Railroad-car stove	June 20, 1871
120,730	Everding, John, Philadelphia, Pa. Device for arresting motion	July 18, 1871
	Everett, George A., and Franklin W. Brooks. (<i>See Brooks & Everett.</i>)	Nov. 7, 1871
111,185	Everett, Samuel J., Mahoney City, Pa. Treating fruit-trees to prevent the ravages of insects, &c.	
	Everett, William E., and Adam S. Cameron. (<i>See Cameron & Everett.</i>)	Jan. 24, 1871
112,572	Everitt, John S., and Charles H. Avery, Oshkosh, Wis. Head-block for saw-mills	
120,634	Same..... Machine for cutting and punching shingle-bands. (Antedated Oct. 20, 1871)	Mar. 14, 1871
121,767	Evers, William, San Francisco, Cal. Bagatelle game and apparatus	Nov. 7, 1871
110,754	Everson, Walter, New York, N. Y. Tug for towing boats	Dec. 12, 1871
115,836	Evert, Henry, deceased, by Charles F. Nahmmacher, administrator, Pittsburgh, Pa. Bedstead	Jan. 3, 1871
119,340	Eves, Chandler, and George W. McEuen. (<i>See McEuen & Eves.</i>)	
	Eves, Francis, Fountain City, Wis. Fanning-mill	June 13, 1871
	Ewart, J. P. (<i>See Brown, John T. H., assignor.</i>)	Oct. 3, 1871
	Ewell, Carlos, <i>et al.</i> (<i>See Montgomery & Howes, assignors.</i>)	
113,150	Ewell, William H. S., administrator. (<i>See Martin & Wombaugh.</i>) (Extension.)	
	Ewing, Alvan B., Lewisburgh, Tenn. Chimney	Mar. 28, 1871
120,953	Ewing, O. G. (<i>See Wight, Lyman, assignor.</i>) (Three cases.) (Reissue.)	
112,024	Ewing, Oscar S., Rome, N. Y. Animal-trap	Nov. 14, 1871
	Ewing, Sarah C., Indianapolis, Ind. Pattern for applying measurements and laying out garments	Feb. 24, 1871
114,428	Ewing, Selena C., Hill's Ferry, Cal. Division-plate for cooking-stoves	May 2, 1871
	Ewings, Orison G., and Lyman Wight. (<i>See Wight & Ewings.</i>) (Two cases.)	
	Excelsior Needle Company. (<i>See Hopson & Brooks, assignors.</i>)	
116,577	Extein, Achille, and Jesse C. Mills, Springfield, Mass. Music-leaf holder	July 4, 1871
110,755	Eynon, David, Saint Louis, Mo. Spike-machine	Jan. 3, 1871
120,254	Same..... Combination of devices and in furnaces for the manufacture of spikes	
110,756	Eynon, David, assignor to Tredegar Company, Saint Louis, Mo. Spike machine	Oct. 24, 1871
118,353	Faas, Anthony, Philadelphia, Pa. Piano	Jan. 3, 1871
118,354	Faas, Anthony J., jr., Philadelphia, Pa. Tuning-pin for pianos	Aug. 22, 1871
113,036	Facer, Wilson E., Philadelphia, Pa. Electro-magnetic burglar-alarm	Aug. 22, 1871
	Faeltz, Ernest F. M., and Philip H. Reinhard. (<i>See Reinhard & Faeltz.</i>)	Mar. 28, 1871
112,233	Fagan, Michel G., assignor to self and Albert C. Corse, Troy, N. Y. Heating-apparatus	
118,705	Fagin, Lewis, Cincinnati, Ohio. Lubricator for vertical shafting	Feb. 28, 1871
4,616	Fahnestock, Frederick S., Chicago, Ill. Sewing-machine sample-trunk. (Design.)	Sept. 5, 1871
111,186	Fahnestock, Obed, Indianapolis, Ind. Tray-holder	Jan. 31, 1871
	Fair, Charles, <i>et al.</i> (<i>See Morgan, Edward, assignor.</i>)	Jan. 24, 1871
112,911	Fair, George W., Dayton, Ohio. Sand-screen	
	Fairbairn, John O. (<i>See Horn, Henry, assignor.</i>)	Mar. 21, 1871
118,598	Fairbanks, Franklin, Saint Johnsbury, Vt. Brake for vehicles	
111,733	Fairbanks, Franklin, and Harvlin Paddock, Saint Johnsbury, Vt. Weighing-scale	Aug. 29, 1871
110,963	Fairbanks, Henry, Saint Johnsbury, Vt. Electro-magnetic weighing-machine	
110,964	Same..... Automatic weighing and distributing scale	Feb. 14, 1871
110,965	Same..... Compression-cock for flexible tubes	Jan. 17, 1871
	Fairbanks, Thaddeus, Saint Johnsbury, Vt. Platform-scale	Jan. 17, 1871
	Fairchild, George H. (<i>See Cremin, Joseph W., assignor.</i>) (Five cases.)	Jan. 13, 1871
118,706	Fairchild, Gerstom H., Cincinnati, Ohio. Medical compound or liniment	
120,731	Fairfield, George A., assignor to the Weed Sewing-Machine Company, Hartford, Conn. Shuttle for sewing-machines	Sept. 5, 1871
	Fairfield, Samuel W. (<i>See Parsons, Getchell & Fairfield.</i>)	
119,591	Fairlie, Robert Francis, England. Locomotive-engine	Nov. 7, 1871
112,435	Fairman, James, New York, N. Y. Stretcher for paintings	
119,132	Faivre, Alexander C., Meadville, Pa. Sash-holder	Oct. 3, 1871
		Mar. 7, 1871
		Sept. 19, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,296	Fales, George S., <i>et al.</i> (See Stanley & Draper, assignors.)	
	Fales, Joel F., Walpole, Mass. Carpet-lining (Reissue) ..	Mar. 14, 1871
111,734	Fales, John R., <i>et al.</i> (See Wilmarth, Moses P., assignor) (Reissue.)	
	Fales, Levi S., assignor to the American Fertilizing Company, New York, N. Y.	
116,578	Treating blood for the manufacture of fertilizers	Feb. 14, 1871
121,453	Falkenan, Louis, San Francisco, Cal. Preparing seal-skins	July 4, 1871
111,443	Falkingham, Edwin, San Francisco, Cal. Child's carriage	Dec. 5, 1871
	Fallis, John N., assignor to self and Charles Thacker, sr., Cincinnati, Ohio.	
	Compound for dressing and coloring the hair	Jan. 31, 1871
118,441	Fallows, James, Philadelphia Pa. Toy-toad	Aug. 29, 1871
121,502	Same	Dec. 5, 1871
112,912	Faloon, Matthew, Bloomington, Ill. Bed-bottom	Mar. 21, 1871
120,732	Fauing, John, and Friederich Legler, Burlington, Iowa. Cultivator	Nov. 7, 1871
4,617	Fanning, David H., Worcester, Mass. Corset	Jan. 31, 1871
	Same. (See Rutherford, Clementine D., assignor.)	
122,113	Fanning, John, and Edward Nugent, assignors to John C. Adams and John H. Andrus, Brooklyn, N. Y. Sewing-machine	Dec. 26, 1871
115,588	Fanning, John T., Norwich, Conn. Joint-end for sheet-metal pipes	June 6, 1871
120,954	Same	Nov. 14, 1871
115,944	Fanyon, Joseph, Bridgeport, Conn. Device for applying remedies to the ear	June 13, 1871
115,043	Farber, Mannasseh W., Mount Pleasant, Iowa. Spring for bed-bottoms	May 23, 1871
115,337	Farine, William, England. Projector	June 13, 1871
120,373	Farley, Frederick A., Pine Meadow, Conn. Washing-machine	Oct. 31, 1871
119,341	Farley, Henry S., Sing Sing, N. Y. Trunk	Sept. 26, 1871
113,754	Farley, Peter, New York, N. Y. Drying bone-black	April 18, 1871
116,823	Farley, Philip, Philadelphia, Pa. Tube-cleaner	July 11, 1871
111,444	Farley, Rasselas, Cincinnati, Ohio. Treating cotton-seed oil to render it drying	Jan. 31, 1871
113,644	Farmer, David, jr., Wheeling, W. Va. Nail and tack plate feeder	April 11, 1871
118,355	Same	Aug. 22, 1871
118,356	Same	Aug. 22, 1871
118,357	Same	Aug. 22, 1871
122,241	Farmer, George P., Brooklyn, N. Y. Needle-threader and spool combined	Dec. 26, 1871
4,841	Farmer, George P., assignor to E. C. Pratt, Brother & Co., Brooklyn, N. Y.	
	Show-case and drawer	April 25, 1871
4,842	Same	April 25, 1871
117,756	Farmer, John H., Detroit, Mich. Coal-shovel. (Antedated July 25, 1871)	Aug. 8, 1871
113,864	Farmer, Moses G., Salem, Mass. Construction of thermo-electric pairs	April 18, 1871
116,579	Same	July 4, 1871
	Farmer, Moses G., and William F. Channing. (See Channing & Farmer.) (Ex-	
111,332	tension.)	
122,242	Farnam, Harriet A., South Bend, Ind. Fly-catcher	Jan. 31, 1871
113,507	Same	Dec. 26, 1871
120,865	Farnan, James, Cleveland, Ohio. Hydrant	April 11, 1871
110,757	Farnham, John M., Hartford, Conn. Spring-bed	Nov. 14, 1871
	Farnham, Renben G., assignor of one-half interest to Russell B. Wheeler, El-	
112,133	bridge, N. Y. Fruit-can	Jan. 3, 1871
115,044	Farquhar, Edwin, Ankenytown, Ohio. Portable feed-rack	Feb. 28, 1871
	Farrad, Thomas M., Skowhegan, Me. Folding or tuck-laying device for sew-	
113,755	ing-machines	May 23, 1871
	Farrar, Alonzo, Brookline, Mass. Composition for printing or painting on sur-	
5,146	faces	April 18, 1871
	Farrar, Chilion M., Buffalo, N. Y. Steam-engine	Aug. 1, 1871
	Farrar, Cyrus S., and Myron S. Holman. (See Holman & Farrar.)	
113,283	Farrar, William B., Greensborough, N. C. Cider and wine mill	April 4, 1871
113,995	Farrar, William H., Richmond, Va. Medical compound for treating rheuma-	
	tism, &c.	April 25, 1871
117,269	Farre, William Theodor, Montreal, Canada. Tobacco-cutting box	July 25, 1871
	Farre, William T., and Ole A. Bryhn. (See Bryhn & Farre.)	
111,114	Farrel, John, New York, N. Y. Flux for welding steel of high and low grade ..	Jan. 24, 1871
116,287	Same	June 27, 1871
120,577	Same	Nov. 7, 1871
121,710	Same	Dec. 12, 1871
121,711	Farrel, John, and Jacob Weimar, New York, N. Y. Bolt for safe-doors	Dec. 12, 1871
115,045	Farrell, John, Brooklyn, N. Y. Lamp-wick	May 23, 1871
116,037	Farrington, Joel, Corry, Pa. Harvester	June 20, 1871
116,038	Same	June 20, 1871
120,578	Farrington, John A., assignor through mesne assignments to self, E. Parke	
	Coby, and Isaac U. Coles, Brooklyn, N. Y. Letter-box	Nov. 7, 1871
113,037	Ferris, John. (See Woodruff, George W., assignor) (Three cases.)	
114,280	Farris, William H., Cairo, Ill. Water-grate bar	Mar. 28, 1871
120,374	Same	May 2, 1871
115,453	Farson, William, Philadelphia, Pa. Sofa-bedstead. (Antedated Oct. 17, 1871) ..	Oct. 31, 1871
115,454	Fassett, Amos, Sterling, Ill. Wagon-coupling	May 30, 1871
	Same	May 30, 1871
	Faubrother, Nathaniel, <i>et al.</i> (See Stanley & Draper, assignors.)	
117,873	Faucett, Hiram W., and Thomson McGowan, Meredith, Pa. Condenser for oil-	
	stills	Aug. 8, 1871
115,723	Faucitt, William N., assignor to self and Thomas C. Morris, Brooklyn, N. Y.	
4,390	Washing-machine	June 6, 1871
115,290	Faught, Luther R., Philadelphia, Pa. Turning-lathe	May 23, 1871
	Same	May 30, 1871
	Holdfast for lathe-spindles	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,291	Faught, Luther R., Philadelphia, Pa. Die-stock for cutting screws.....	May 30, 1871
119,683	Same.....Cog-gearing.....	Oct. 3, 1871
121,048	Same.....Horse-power.....	Nov. 21, 1871
110,758	Faught, Nelson, Pittsborough, Ind. Plow.....	Jan. 3, 1871
110,910	Faulkner, Admiral, assignor to J. W. Hampton, Mount Pleasant, Iowa. Fence.....	Jan. 10, 1871
116,288	Faulkner, Daniel A., Centreville, Cal. Punching-machine.....	June 27, 1871
111,831	Faulkner, Osker F. A., Mount Pleasant, Iowa. Fence.....	Feb. 14, 1871
118,599	Faulks, John P., Glasgow, Mo. Baby-jumper.....	Aug. 29, 1871
122,003	Faussett, John, Leonardtown, Md. Gate. (Antedated Dec. 7, 1871).....	Dec. 19, 1871
112,573	Favor, Zebulon C., assignor to self and Oscar C. Chase, Chicago, Ill. Elevator.....	Mar. 14, 1871
122,163	Fawcett, William, New York, N. Y. Mode of covering harness-mountings.....	Dec. 26, 1871
118,707	Fawkes, Joseph W., Maroa, Ill. Grading and ditching machine.....	Sept. 5, 1871
114,544	Fay, John, Lacon, Ill. Medical compound.....	May 9, 1871
	Fay, J. A., & Co. (See Passel, George W., assignor.)	
	Same.....(See Bickford, Henry, assignor.)	
	Same.....(See Doane, William H., assignor.)	
	Same.....(See Schmackers, Anton, assignor.)	
	Same.....(See Doane & McKee, assignors.)	
	Same.....(See Dobson & Doane, assignors.)	
	Fay, Lucien, deceased, by Joshua B. Prouty, administrator, Cincinnati, Ohio, Machine for seaming sheet-metal roofs..... (Extension).....	July 13, 1871
111,623	Fay, Lyman, Fall River, Mass. Sifter and strainer.....	Feb. 7, 1871
112,574	Same.....Nut-lock.....	Mar. 14, 1871
4,224	Fay, Lyman, assignor to Joseph M. Rice and Daniel R. Pratt, Worcester, Mass. Securing railway-rail joints..... (Reissue).....	Jan. 3, 1871
113,151	Fay, Philip, sr., Lacon, Ill. Medical compound for cure of scrofula, liver complaint, &c.....	Mar. 23, 1871
121,602	Fayman, George H., assignor to De Vere Burr, Washington, D. C. Machine for printing mail-tags.....	Dec. 5, 1871
	Fee, William R., Cincinnati, Ohio. Machine for hulling cotton-seed. (Extension).....	July 26, 1871
	Fegans, James H. (See Hubbard, William Penn, assignor.)	
	Feiock, Casper, and Joseph F. Applegate. (See Applegate & Feiock.)	
120,866	Felber, Jacob, assignor to self and Andrew Brandenburger, Saint Louis, Mo. Excelsior machine.....	Nov. 14, 1871
111,735	Fell, John E., and John H. Mattock, Maquoketa, Iowa. Hay-loader.....	Feb. 14, 1871
119,592	Fell, Thomas, New York, N. Y. Animal-trap.....	Oct. 3, 1871
118,442	Fellows, Barnard T., Lancaster, Pa. Wash-boiler.....	Aug. 29, 1871
112,575	Fellows, Henry, Bloomington, Ind. Track-cleaner.....	Mar. 14, 1871
113,152	Same.....Spur.....	Mar. 25, 1871
115,945	Same.....Weatherboard-gauge.....	June 13, 1871
	Fellows, Hoffman & Co. (See Thomas, Francis E., assignor.)..... (Design.)	
121,349	Fellows, Jabez B., Augusta, Maine. Clothes-drier.....	Nov. 23, 1871
117,874	Fellows, James H., Alba, Pa. Wagon-seat fastening.....	Aug. 8, 1871
	Felt, Hannibal, <i>et al.</i> (See Bolton, Simeon R., assignor.)	
120,255	Felt, Luther W., Keene, N. H. Machine for spinning wool.....	Oct. 24, 1871
120,256	Same.....Mechanism for delivering roving in spinning-machines.....	Oct. 24, 1871
	Felter, Daniel B. (See Lenhart, Adam I., assignor.)	
112,794	Felton, Jacob, Fairmount, Ind. Sawing-machine.....	Mar. 21, 1871
	Fendrich, Xaver, and Joseph L. Harbey. (See Harbey & Fendrich.)	
121,092	Fenerty, Edward Lawson, Halifax, Nova Scotia. Skate-fastening.....	Nov. 21, 1871
115,455	Fenimore, Wesley, Philadelphia, Pa. Watch-case spring.....	May 30, 1871
4,235	Fenn, William A., Rochester, N. Y. Machine for forming the brims of felt-hats. (Reissue).....	Jan. 17, 1871
112,134	Same.....Attaching knobs to their spindles.....	Feb. 25, 1871
112,699	Same.....Mechanical movement.....	Mar. 14, 1871
116,941	Same.....Attaching knobs to their spindles.....	July 11, 1871
114,784	Fennell, William P., assignor to Margaret Fennell, Louisville, Ky. Compound for the cure of chills and fevers.....	May 16, 1871
	Fenner, H. N. (See Bradford, Horace C., assignor.)	
116,824	Fensom, John, Toronto, Canada. Copying-press.....	July 11, 1871
	Fenton, A. Ward, <i>et al.</i> (See Phillips, George B., assignor.)	
116,942	Ferguson, Alexander, David Ralston, and George Hildreth, Troy, N. Y. Brick-machine.....	July 11, 1871
118,224	Ferguson, James, and John Turner, Bridgewater, Mass. Nail-plate feeder.....	Aug. 22, 1871
112,234	Ferguson, John B., and Samuel M. White, Big Lick, Va. Plow.....	Feb. 25, 1871
	Ferguson, John H., <i>et al.</i> (See Staples, John H., assignor.)	
120,955	Ferguson, Peter, New Haven, Conn., and Francis G. Bates, Springfield, Mass. Mechanical movement.....	Nov. 14, 1871
118,120	Ferguson, Robert E., Chicago, Ill. Washing-machine.....	Aug. 15, 1871
5,176	Ferreira, Joseph H., Newark, N. J. Molding..... (Design).....	Aug. 8, 1871
116,698	Ferrie, William, Great Britain. Smelting or blast-furnace.....	July 4, 1871
113,411	Ferris, Benjamin, Wilmington, Del. Earth-closet.....	April 4, 1871
117,270	Ferris, Isaac, Cincinnati, Ohio. Kite. (Antedated July 18, 1871).....	July 25, 1871
	Ferris, Josiah J., and Jacob Beasley. (See Beasley & Ferris)..... (Design.)	
120,425	Ferris, Oliver, Pawling, N. Y. Coffee-pot stand.....	Oct. 31, 1871
113,508	Ferris, Oscar C., and Frederick B. Miles, Philadelphia, Pa. Construction of steam-hammer standards.....	April 11, 1871
118,849	Ferriss, George H., Utica, N. Y. Cartridge-loader.....	Sept. 12, 1871
119,834	Same.....Breech-loading fire-arm.....	Oct. 10, 1871
113,865	Ferry, William M., Grand Haven, Mich. Saw-mill.....	April 18, 1871
113,866	Same.....same.....	April 18, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,436	Ferry, William M., Grand Haven, Mich. Sawing-mill (Extension) ..	July 10, 1871
	Fessenden, Samuel C., Stamford, Conn. Body-lantern holder.....	Mar. 7, 1871
	Fetherstone, Patrick, <i>et al.</i> (See Jackson, Richard A., assignor.)	
110,839	Fetter, David F., New York, N. Y. Drive-screw.....	Jan. 10, 1871
118,225	Feusier, Louis, jr., Virginia City, Nev. Ruler.....	Aug. 22, 1871
118,226	Same.....same.....	Aug. 22, 1871
	Feyh, Adrian. (See Schlich, Frederick, assignor.)	
111,333	Ficht, Frank, Dyckesville, Wis. Machine for splitting wood.....	Jan. 31, 1871
111,047	Fickett, Albert, and Charles C. Benton, Rochester, N. Y. Grate-bar.....	Jan. 17, 1871
111,048	Field, Benjamin F., Beloit, Wis. Machine for lining straw-boards, &c.....	Jan. 17, 1871
117,060	Same.....Apparatus for pasting lining to paper.....	July 18, 1871
	Field, Charles J., <i>et al.</i> (See Bird, Charles, assignor.)	
111,526	Field, David C. G., Lowell, Mass. Water-heater for steam-boilers.....	Feb. 7, 1871
112,329	Field, Erastus, Ostrander, Ohio. Medical compound for cure of catarrh and asthma.....	Mar. 7, 1871
119,752	Field, Francis F., Stapleton, N. Y. Helical wire-brush.....	Oct. 10, 1871
	Field, George B., <i>et al.</i> (See Edison, Thomas A., assignor.)	
	Field, George B., and Edward A. Calahan. (See Calahan & Field.)	
111,527	Field, Loyal C., Galesburgh, Ill. Steam-generator.....	Feb. 7, 1871
	Field, Seymour. (See Winton & Hines.)	
115,946	Fielder, John W., Princeton, N. J. Apparatus for preserving wood by the Robbins process.....	June 13, 1871
117,529	Fielding, Albert A., Boston, Mass. Device for hanging pictures, mirrors, &c....	Aug. 1, 1871
116,699	Fielding, Bridget, Cincinnati, Ohio. Coal-scuttle.....	July 4, 1871
113,996	Fields, William, Wilmington, Del. Battery-gun.....	April 25, 1871
	Fiester, John U., and William L. Herberling. (See Herberling & Fiester.)	
111,049	Fifield, Levi W., assignor to Thomas F. Arnold and Henry E. Webster, Worcester, Mass. Shirt button or stud.....	Jan. 17, 1871
117,875	Fifield, Levi W., assignor to self and William H. Hathorne, Worcester, Mass. Shingling and slating bracket.....	Aug. 8, 1871
120,956	Filbert, Lewis S., Philadelphia, Pa. Composition for pavements.....	Nov. 14, 1871
118,797	Filbey, Samuel, Lewiston, N. Y. Machine for thrashing and separating grain...	Sept. 12, 1871
118,443	Filer, Amos W., and Llewellyn T. Hatfield, said Hatfield assignor to said Filer, Danby, Ill. Car-brake.....	Aug. 29, 1871
110,643	Filkins, Reed A., North Adams, Mass. Alarm for locomotive-engines.....	Jan. 3, 1871
112,437	Finch, Amon L., Sing Sing, N. Y. Stove-leg.....	Mar. 7, 1871
120,257	Finch, Reuben R., assignor to Union Stove Works, Peekskill, N. Y. Hot-air furnace.....	Oct. 24, 1871
119,699	Finck, Nicholas, assignor to self and Edward P. Bray, Elizabeth, N. J. Liquid-meter.....	Oct. 10, 1871
111,923	Findlay, Christopher D., and Daniel D. Craig, Macon, Ga. Press for hay, cotton, &c.....	Feb. 7, 1871
113,038	Finger, John Franklin, Wilmington, N. C. Hand turning and boring machine...	Mar. 28, 1871
116,787	Fink, Albert, Louisville, Ky. Bridge-truss.....	July 4, 1871
111,187	Fink, John B., Mechanicsville, Pa. Pipe-coupling.....	Jan. 24, 1871
116,289	Fink, William D., Windsor, Ill. Movable standard in wagons.....	June 27, 1871
118,227	Finlay, Leonard, Saint Louis, Mo. Balancing-piston.....	Aug. 22, 1871
120,053	Finlayson, Henry C., New York, N. Y. Tobacco-pipe.....	Oct. 17, 1871
121,603	Finley, Amaziah, Bainbridge, Ind. Fifth-wheel.....	Dec. 5, 1871
121,350	Finley, James R., Delphi, Ind. Trace-coupling.....	Nov. 28, 1871
114,785	Finley, John E., Memphis, Tenn. Churn.....	May 16, 1871
117,757	Finley, John E., George H. Hurd, and Benjamin F. Tatem, Memphis, Tenn. Fire-kindler.....	Aug. 8, 1871
116,825	Finley, Perry, New York, N. Y. Treating rubber and other vulcanizable gums.	July 11, 1871
113,412	Finnegan, George, England. Saw-mill.....	April 4, 1871
	Finney, William S., and George W. Parsons. (See Parsons & Finney.)	
117,163	Finby, Edwin A., Norwalk, Ohio. Tub, &c.....	July 18, 1871
	Firmin, George Jordan. (See Kirk, Joseph, assignor.)	
	Firth, Williams & Co. (See Lochhead, William, assignor.) (Three cases.) (Design.)	
117,614	Fischer, Adolph, New York, N. Y. Brush for cleaning tumblers.....	Aug. 1, 1871
	Fischer, George, and John Michna. (See Michna & Fischer.)	
117,164	Fischer, Louis F., Fenimore, Wis. Water-elevator.....	July 18, 1871
	Fischer, Peter, <i>et al.</i> (See Seyl, Fischer & Brenner.)	
120,579	Fischer, William A., Allegheny City, Pa. Composition for making crucibles, glass-melting pots, &c.....	Nov. 7, 1871
114,120	Fiscus, Charles, Washington, D. C. Broom-head.....	April 25, 1871
113,039	Fish, Edward G., Colfax, Iowa. Pitman-rod connection.....	Mar. 28, 1871
114,786	Fish, James, Chicago, Ill. Stereotype-block.....	May 16, 1871
119,226	Fish, Silas D., Schuyler Falls, N. Y. Ladder-hook.....	Sept. 26, 1871
116,290	Fisher, Alexander, Whitinsville, Mass. Ring-driver.....	June 27, 1871
113,413	Fisher, Charles, assignor to self and Henry N. Wilcox, Niles, Mich. Stove-drum.....	April 4, 1871
112,025	Fisher, Charles Friedrich, assignor to self, Lewis Moses, Bernard Moses, Gustave Moses, and William Bogel, New Orleans, La. Floating water-elevating wheels.....	Feb. 21, 1871
119,835	Fisher, Charles G., Washington, D. C. Feed-water apparatus for steam-boilers.	Oct. 10, 1871
119,593	Fisher, Charles H., Albany, N. Y. Turn-table for railways.....	Oct. 3, 1871
5,201	Fisher, Cyrus, assignor to self and Tobias Kohn, Canton, Mass. Hoe. (Design) ..	Aug. 15, 1871
113,153	Fisher, Daniel, and William Cumming, Oil City, Pa. Valve for oil-tanks.....	Mar. 28, 1871
118,001	Fisher, David, Mansfield, Mass. Roof-bracket.....	Aug. 15, 1871
	Fisher, Elam, and Junius F. Whiting. (See Whiting & Fisher.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,026	Fisher, Fisher Ames, Westfield Township, N. J. Apparatus for carbureting and generating gas.	Feb. 21, 1871
121,936	Fisher, George W., Rochester, N. Y. Toy-monument. (Antedated Dec. 3, 1871).	Dec. 19, 1871
120,867	Fisher, Isaac C. (See Brooks, William, assignor.)	
4,878	Fisher, James W., Islip, N. Y. Refrigerator.	Nov. 14, 1871
	Fisher, John, assignor to Hartford Carpet Company, Enfield, Conn. Carpet-pattern	
4,920	Same.....Carpet-pattern	(Design) May 9, 1871
4,944	Same.....same	(Design) May 23, 1871
4,987	Same.....same	(Design) May 30, 1871
4,988	Same.....same	(Design) June 13, 1871
4,989	Same.....same	(Design) June 13, 1871
116,251	Fisher, John C., assignor to self and Robert F. Walsh, Providence, R. I. Loom-picker motion	June 20, 1871
110,840	Fisher, John W., Albany, N. Y. Shoe.	Jan. 10, 1871
	Fisher, Joseph G., and William Stark. (See Stark & Fisher)....(Two cases.)	
4,242	Fisher, Joseph G., et al. (See Stark, Fisher & Fitch).....(Three cases.)	
115,724	Fisher, Joseph Hyde, Chicago, Ill. Refrigerator	(Reissue) Jan. 31, 1871
116,291	Fisher, Osear, Smyrna, Del. Combined door-fastenings and alarms.	June 6, 1871
116,580	Fisher, Paul, Brooklyn, N. Y. Flesh-fork	June 27, 1871
	Fisher, Robert F., and George F. Waldron, assignors to George F. Waldron, Boston, Mass. Measuring-funnel. (Antedated June 20, 1871)....	July 4, 1871
114,933	Fisher, Willet, assignor to self, Jerry C. Gray, and Jessie L. Judd, Marathon, N. Y. Dasher for wheeled vehicles	May 16, 1871
115,456	Fisher, William, New York, N. Y. Show-stand	May 30, 1871
114,121	Fisk, Benjamin F., and Mark B. Stone, Haverhill, Mass. Heel-die	April 25, 1871
112,330	Fisk, Henry Clay, Wellsville, N. Y. Machine for grinding the cutters of mowers, &c	
120,253	Same.....Hand-grinders for harvester-cutters.	Mar. 7, 1871
	Fisk, H. G., et al. (See Heath, Henry, assignor).....(Reissue.)	Oct. 24, 1871
121,604	Fisk, Miles, Adrian, Mich. Churn	Dec. 5, 1871
	Fiske, Egbert H., and William S. Roberts. (See Roberts & Fiske.)	
5,024	Fiske, Joseph W., New York, N. Y. Fountain	(Design) June 20, 1871
5,025	Same.....same	(Design) June 20, 1871
5,147	Same.....Settee	(Design) Aug. 1, 1871
116,581	Fisler, Jacob, and George Crompton, Jersey City, N. J. Hasp-lock	July 4, 1871
	Fitch, Jesse J., et al. (See Chinn, Hall & Fitch.)	
120,957	Fitch, Lewis R., assignor to Napoleon Dubrul, Chicago, Ill. Driving gear for portable forges	Nov. 14, 1871
115,292	Fitch, Ross L., assignor to self and William A. Van Houten, Sing Sing, N. Y. Hoisting and lowering apparatus.	May 30, 1871
	Fitch, Simeon, et al. (See Stark, Fisher & Fitch).....(Three cases.)	
115,589	Fitch, William. (See Taylor, Thomas, assignor.)	
117,758	Fithian, Lemuel Scudder, Brooklyn, N. Y. Apparatus for converting motion	June 6, 1871
	Same.....Clutch-gearing	Aug. 8, 1871
	Fitts, Benaiah, Worcester, Mass. Arrangement of feed-rollers for planing machines	(Extension) Aug. 7, 1871
112,135	Fitts, George W., Oberlin, Ohio. Traction-engine	Feb. 23, 1871
117,759	Same.....Steering-apparatus for road-steamers. (Antedated Aug. 2, 1871).	Aug. 8, 1871
117,760	Same.....Rubber-block tire for traction-wheel	Aug. 8, 1871
119,922	Same.....Wheel-traction	Oct. 17, 1871
117,165	Fitts, R. Berkeley, Philadelphia, Pa. Preparing wheat, corn, and other grain for food	July 18, 1871
	Fitts, Robert B. (See Waitt, George W., assignor).....(Two cases.)	
114,787	Fitts, R. Berkeley, assignor to self, George W. Waitt, and William Rogers, Philadelphia, Pa. Apparatus for carbureting air	May 16, 1871
113,947	Fitts, R. Berkeley, assignor to self and George W. Waitt, Philadelphia, Pa. Preparing grain for food	June 13, 1871
117,271	Same.....Process and apparatus for treating rice, wheat, and corn	July 25, 1871
	Fittz, Edwin H., et al. (See Switzer, John J., assignor.)	
121,454	Fitzgerald, Daniel, New York, N. Y. Binding-post safe	Dec. 5, 1871
121,455	Same.....Submarine ordnance. (Antedated Dec. 2, 1871)	Dec. 5, 1871
121,503	Same.....Safe	Dec. 5, 1871
121,504	Same.....Cast metal desk	Dec. 5, 1871
121,605	Same.....Railway	Dec. 5, 1871
	Fitzgerald, Patrick J., et al. (See Gubbins, Richard R., assignor.)	
111,334	Fitzgerald, Walter H., assignor to Spadone & Fitzgerald, Carlstadt, N. J. Stem-winding watch	Jan. 31, 1871
114,122	Fitzgerald, Walter H., assignor to self and Isaiah A. Huson, Brooklyn, N. Y. Axle-box cover	April 25, 1871
116,173	Fitzgibbons, Maurice, New York, N. Y. Machine for pasting paper upon straw-board, &c	June 20, 1871
119,836	Same.....Wood-pavement. Antedated Sept. 2, 1871).	Oct. 10, 1871
118,002	Fitzhenry, Edward, assignor to Hide and Leather Machine Company, Boston, Mass. Machine for dressing hides.	Aug. 15, 1871
118,003	Same.....Machine for dressing leather.	Aug. 15, 1871
119,513	Same.....Machine for scouring skins and hides.	Oct. 3, 1871
114,788	Fitzhugh, Benjamin G., Frederick, Md. Cooking-stove	May 16, 1871
119,342	Same.....Water-closet seat. (Antedated Sept. 11, 1871).	Sept. 26, 1871
119,973	Same.....Combined wheelbarrow and hand-plow	Oct. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,974	Fitzhugh, Benjamin G., Frederick, Md. Broiler.....	Oct. 17, 1871
119,975	Same..... Window-shade and clothes-drier.....	Oct. 17, 1871
119,976	Same..... Dumping-cart.....	Oct. 17, 1871
119,977	Same..... Portable furnace.....	Oct. 17, 1871
	Fitzhugh, Charles L. (See Acheson, William, assignor.)	
111,188	Flad, Henry, and James B. Eads, Saint Louis, Mo. Hoisting-apparatus.....	Jan. 24, 1871
	Same..... (See Eads & Flad.)	
118,004	Flagg, James M., Providence, R. I. Oil-proof rubber for steam-packing, &c.....	Aug. 15, 1871
	Flagg, Thomas J., et al. (See Heath, Henry, assignor)..... (Reissue.)	
	Flaig, Matthew, and Godfrey E. Culp. (See Culp & Flaig.)	
	Flanders, L. B. (See Stevens, Charles L., assignor.)	
	Same..... (See Brastow & Zwiebel, assignors.)	
114,934	Flanders, Marvin, Kendall, N. Y. Clothes-drier.....	May 16, 1871
116,826	Flanery, David, New Orleans, La. Printing-telegraph.....	July 11, 1871
114,659	Flanigan, Mark, Detroit, Mich. Water-wheel.....	May 9, 1871
115,457	Flanigan, Mark, assignor to self and Harvey D. Wiuser, Detroit, Mich. Combined concrete and wood pavement.....	May 30, 1871
	Fleming Brothers. (See Hogg, James, assignor)..... (Design.)	
	Same..... (See Pye, Henry, assignor.)	
118,522	Fleming, Jacob S., Island Creek, Ohio. Cultivator.....	Aug. 29, 1871
115,184	Fleming, John H., Dundee, Mich. Thill-coupling.....	May 23, 1871
	Fleming, Thornton H., and Eder Hedge. (See Hedge & Fleming.)	
113,414	Flesch, Charles, Rochester, N. Y. Tumbler for permutation-locks.....	April 4, 1871
121,093	Flesher, Thomas, Dunkirk, N. Y. Machine for boring and mortising blind-slats.....	Nov. 21, 1871
120,508	Fletcher, Addison C., New York, N. Y. Steam-boiler flue-joint.....	Oct. 31, 1871
120,733	Same..... Grate-bar.....	Nov. 7, 1871
121,239	Fletcher, Frank A., Newark, Del. Paper-cutting machine.....	Nov. 28, 1871
111,050	Fletcher, John E., Rectortown, Va. Seed-drill and cockle-separator combined.....	Jan. 17, 1871
116,039	Fletcher, Moore R., Boston, Mass. Pulp engine or crusher.....	June 20, 1871
120,635	Fletcher, William, New York, N. Y. Lubricating-apparatus for cylinders of condensing steam-engines.....	Nov. 7, 1871
114,789	Flickinger, Peter, Hanover, Pa. Grain-separator.....	May 16, 1871
	Flickner, Peter. (See Ayres, Sidney K., assignor.)	
119,021	Fling, George F., Portland, Me. Boot and shoe heel.....	Sept. 19, 1871
	Fling, Henry D. (See Measey, Frederick, assignor.)..... (Design.)	
113,415	Flinn, William Thomas, assignor to self and Jacob Steinmetz Thorn, Philadelphia, Pa. Let-off mechanism for looms.....	April 4, 1871
4,626	Flinsch, Heinrich, New York, N. Y. Type..... (Design.)	Feb. 7, 1871
115,046	Flint, Delos C., Bardolph, Ill. Corn-harvester.....	May 23, 1871
115,590	Flood, David A., and Daniel W. Brown, Woodbridge, N. J. Stove-grate.....	June 6, 1871
119,022	Floom, John P., Canton, Ohio. Grain-drill.....	Sept. 19, 1871
119,023	Same..... same.....	Sept. 19, 1871
122,243	Flower, James, Detroit, Mich. Boring-bar for facing the ends of cylinders.....	Dec. 26, 1871
	Floyd, James R., New York, N. Y. Retort-cover..... (Extension.)	July 21, 1871
111,335	Floyd, John G., jr., New York, N. Y. Paper-file.....	Jan. 31, 1871
4,828	Flues, Eberhardt, White Marsh, Pa. Talma or cloak-garment..... (Design.)	April 18, 1871
4,551	Fuhrer, William F., New York, N. Y. Hair-pin..... (Design.)	Jan. 3, 1871
	Fluid Meter Company. (See Cook & Watson, assignors.)	
118,708	Flummerfelt, Daniel A., Bridgeville, N. J. Water-wheel.....	Sept. 5, 1871
	Flynn, Francis, et al. (See Banks, James, assignor.)	
	Flynn, Thomas, and Joseph Monaghan. (See Monaghan & Flynn.)	
120,054	Foe, Amos H., Strathroy, Canada. Pump-piston.....	Oct. 17, 1871
113,756	Fogarty, John, Brooklyn, N. Y. Signal for railroads.....	April 18, 1871
111,624	Fogarty, Thomas B., Brooklyn, N. Y. Water-meter.....	Feb. 7, 1871
115,591	Same..... Gas-machine.....	June 6, 1871
115,592	Same..... same.....	June 6, 1871
115,593	Same..... same.....	June 6, 1871
115,594	Same..... same.....	June 6, 1871
115,595	Same..... same.....	June 6, 1871
115,596	Same..... same.....	June 6, 1871
115,597	Same..... same.....	June 6, 1871
119,227	Same..... same.....	Sept. 26, 1871
121,768	Fogelberg, Carl, Boston, Mass. Key-board for reed and pipe organs.....	Dec. 12, 1871
113,645	Fogerty, Valentine, Boston, Mass. Non-freezing pipe.....	April 11, 1871
117,398	Same..... Breech-loading fire-arm.....	July 25, 1871
121,937	Same..... Meter.....	Dec. 19, 1871
114,123	Fogg, Thomas, Saint Mary's, Canada. Switch for changing gauge of cars.....	April 25, 1871
119,343	Foley, Cornelius O., Troy, N. Y. Stove-grate.....	Sept. 26, 1871
120,152	Foley, Dennis D., and John J. Johnson, Washington, D. C. Cap and other paper.....	Oct. 24, 1871
121,938	Foley, John T., New York, N. Y. Sign for street-lamps.....	Dec. 19, 1871
	Folger, Edward F. (See Roberts, Thomas, assignor.)	
	Folk, John G., and Olop Benson. (See Benson & Folk.)	
112,438	Follausbee, John S., and George Doolittle, assignors to the Forrester Manufacturing Company, Bridgeport, Conn. Pump-piston.....	Mar. 7, 1871
111,115	Folleau, Alexander, San Francisco, Cal. Truss.....	Jan. 24, 1871
113,284	Folsom, Andrew, Eastport, Me. Water and wind wheel.....	April 4, 1871
119,456	Folsom, George F., assignor of one-half interest to Albert A. Folsom, Boston, Mass. Signaling-device for railroads.....	Oct. 3, 1871
111,736	Folsom, Henry H., assignor to Charles A. Chase, Lowell, Mass. Drill-rest for turning-lathes.....	Feb. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Folsom, John R. (<i>See</i> Lambert, Richard C., assignor.)	
4,290	Folsom, John T., and John S. (<i>See</i> Marshall, John S., assignor.)	
119,923	Folsom, Nathaniel T., Laconia, N. H. Atmospheric dental plate (Reissue)	Mar. 7, 1871
	Folsom, Rufus, and Harry R. Smith. (<i>See</i> Smith & Folsom)..... (Two cases.)	
112,027	Folts, G. W., Boston, Mass., and James L. Branson, Chicago, Ill. Knitting-machine	Feb. 21, 1871
114,429	Fontaine, Heppolyte, France. Steam-engine	May 2, 1871
119,923	Fontaine, Patrick H., Reidsville, N. C. Propulsion of canal-boats	Oct. 17, 1871
116,040	Fontayne, Albert, Cincinnati, Ohio. Treadle for sewing-machines	June 20, 1871
113,154	Foot, David A., and George S. Knapp, Winona, Minn. Lighting-rod	Mar. 28, 1871
	Foote, Hiram W. (<i>See</i> Horton, John M., assignor.)	
118,919	Foote, James B., Handen, N. Y. Wagon-seat	Sept. 12, 1871
	Foote, James H., and Charles R. Harvey. (<i>See</i> Harvey & Foote.)	
111,116	Foote, Lucas, North Fairfield, Ohio. Steam-boiler feeder	Jan. 24, 1871
117,530	Foote, Monroe B., Northampton, Mass. Glove-fastener	Aug. 1, 1871
118,005	Foote, Richard R., Chicago, Ill. Device for raising letters on metal plates. (Antedated Aug. 11, 1871)	Aug. 15, 1871
114,790	Foote, Theodore M., and Charles A. Randall, Brooklyn, E. D., N. Y. Printing-telegraph apparatus	May 16, 1871
114,791	Same..... Printing-telegraph apparatus	May 16, 1871
114,792	Same..... Same	May 16, 1871
114,793	Same..... Printing-telegraph	May 16, 1871
113,416	Forbes, David, and Astley P. Price, England. Treatment of sewage and the manufacture of fertilizers	April 4, 1871
115,293	Forbes, Isaac W., La Porte, Ind. Polishing ores to aid in amalgamating the precious metals	May 30, 1871
115,294	Same..... Cleaning pulverized ores so as to aid in amalgamation	May 30, 1871
115,295	Same..... Stamp-battery	May 30, 1871
115,296	Same..... Oscillating-valve for steam and air engines	May 30, 1871
115,297	Same..... Same	May 30, 1871
115,298	Same..... Slide-valve for steam-engines	May 30, 1871
115,299	Same..... Same	May 30, 1871
115,300	Same..... Valve-gear for steam-engines	May 30, 1871
115,301	Same..... Steam-engine	May 30, 1871
118,920	Forbes, John, Halifax, Nova Scotia. Bending-machine	Sept. 12, 1871
121,240	Forbes, John Charles, Toronto, Canada. Studio-casel	Nov. 28, 1871
119,837	Forbes, Samuel J., Marshalltown, Iowa. Blacksmiths' tool	Oct. 10, 1871
112,795	Forbis, Herbert K., Danville, Ky. Magazine fire-arm	Mar. 21, 1871
	Ford, C. B., and Benjamin F. (<i>See</i> Webb, Edward, assignor.)	
116,041	Ford, David M., and John A. Kley; said Kley assignor to said Ford, Chicago, Ill. Fire-extinguisher	June 20, 1871
117,399	Ford, Frank M., assignor to self and Charles S. Pearl, Sebec, Me. Lantern	July 25, 1871
111,625	Ford, Franklin D., New Bedford, Mass. Boot and shoe fastener	Feb. 7, 1871
117,876	Ford, Franklin D., New Bedford, Mass., and Elmer D. McIntosh, Washington, D. C. Shoe-fastening	Aug. 8, 1871
111,832	Ford, Frederic G., Baltimore, Md. Bedstead and bed-bottom. (Antedated Feb. 10, 1871)	Feb. 14, 1871
115,948	Same..... Washington, D. C. Invalid-bedstead	June 13, 1871
120,734	Same..... Philadelphia, Pa. Slat-holder for bedsteads	Nov. 7, 1871
	Same..... (<i>See</i> Smith, Sidney E., assignor.)	
111,833	Ford, George A., Oswego, N. Y. Tackle for hoisting sail	Feb. 14, 1871
112,331	Ford, Jeremy T., San Francisco, Cal. Machine for making hooks and eyes	Mar. 7, 1871
	Ford, Martin W. (<i>See</i> Robbins, Joseph A., assignor.)	
	Ford, William A., and Peter Lugenbell. (<i>See</i> Lugenbell & Ford.)	
	Fordyce, John. (<i>See</i> Gray & Brittingham, assignors)..... (Reissue.)	
116,827	Force, John T., Henry County, Ky. Corn-plauter	July 11, 1871
116,422	Forehand, Sullivan, and Henry C. Wadsworth, Worcester, Mass. Revolving fire-arm	June 27, 1871
121,606	Same..... Metallic cartridge	Dec. 5, 1871
4,360	Foreman, Benjamin S., Morrison, Ill. Preserving wood, railroad ties, &c. (Reissue)	May 2, 1871
114,124	Foreman, Edward L., Rantoul, Ill. Car-coupling	April 25, 1871
114,794	Foreman, John, Healdsburg, Cal. Thrashing-machine	May 16, 1871
115,047	Forker, William, Rockland, Pa. Crevice searcher and cleaner for oil-wells	May 23, 1871
117,615	Same..... Reamer for oil-wells	Aug. 1, 1871
120,868	Forrest, David, assignor to self and A. H. Bibber, Eastport, Me. Hemmer for sewing-machines	Nov. 14, 1871
	Forrest, William W., and David Gilmore. (<i>See</i> Gilmore & Forrest.)	
	Forrester Manufacturing Company. <i>See</i> Follansbee & Doolittle, assignors.)	
	Forrow, Emory D., and Edward McDuff. (<i>See</i> McDuff & Forrow.)	
	Forsaith, Samuel C. (<i>See</i> Kendal & Stark, assignors.)	
119,700	Forschner, Charles, New York, N. Y. Sausage-stuffer	Oct. 10, 1871
116,423	Forstall, Theobald, New Orleans, La. Apparatus for storing and discharging naphtha, &c.	June 27, 1871
	Forster, Simon. (<i>See</i> Harrison, George W., assignor.)	
120,509	Forster, Thomas A. D., Philadelphia, Pa. Artificial teeth	Oct. 31, 1871
4,243	Forsyth, James B., Boston, Mass. Rubber-rolls for clothes-wringers. (Reissue)	Jan. 31, 1871
4,244	Same..... Manufacture of India-rubber rollers	Jan. 31, 1871
117,400	Fortin, Charles, Poultney, Vt. Washing-machine	July 25, 1871
111,626	Foskett, William, assignor to Charles Parker, Meriden, Conn. Gate-latch	Feb. 7, 1871
	Foskett, William A., and Samuel F. Gold. (<i>See</i> Gold & Goskett).... (Reissue.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,006	Foss, Eliphalet J., Boston, Mass. Photography.....	Aug. 15, 1871
	Foss, James M. (See Putnam, Perley, assignor.)	
115,185	Foss, John F., assignor to self and John W. Pierce, Lowell, Mass. Stripper-carrying frame for carding-machines.....	May 23, 1871
	Foster, Aaron T., and Jesse Bowen. (See Bowen & Foster.)	
120,188	Foster, Alexander, W., jr., Pittsburgh, Pa. Grate-bar.....	Oct. 24, 1871
	Foster, Andrew, <i>et al.</i> (See Capron, Elisha P. H., assignor.)	
116,943	Foster, Calvin A., assignor to Sewell K. Lovewell, David Huntoon, and Cyrus A. Foster, Fitchburgh, Mass. Apple parer and slicer.....	July 11, 1871
118,444	Foster, Clement S., Ashland, Pa., and Oliver Saylor, Philadelphia, Pa., assignors to selves, Walter F. Shultz, and T. C. Else. Rubber-boot.....	Aug. 29, 1871
	Foster, Daniel D., <i>et al.</i> (See Dinsmore, Alfred S., assignor.)	
	Foster, Frank A., <i>et al.</i> (See Brooks, Thomas, assignor.)	
115,838	Foster, Hickman E., Decatur, Ill. Boat-detaching apparatus.....	June 13, 1871
	Foster, Israel. (See Kerr, Hugh S., assignor)..... (Nine cases.) (Design.)	
	Foster, James H., and Frederick J. Abbey. (See Abbey & Foster.)	
115,949	Foster, John C., New London, Conn. Machine for cutting round belts.....	June 13, 1871
114,430	Foster, John G., Boston, Mass. Counterpoise gun-carriage.....	May 2, 1871
119,924	Same.....	Oct. 17, 1871
117,061	Foster, John H., Chicago, Ill. Packing-box.....	July 18, 1871
118,445	Foster, Joseph, assignor to self and Ephraim Foster, Keene, N. H. Reed musical instrument.....	Aug. 29, 1871
	Foster, Merriam & Co. (See Merriam, Julius E., assignor)..... (Design.)	
119,925	Foster, Morrison, Cleveland, Ohio. Machine for making spikes.....	Oct. 17, 1871
114,231	Foster, Samuel C., assignor to the Monitor Shield Company, New York, N. Y. Nipple-shield.....	May 2, 1871
112,235	Foster, Seymour, Lansing, Mich. Clothes-rubber.....	Feb. 28, 1871
	Foster, Sol., jr. (See Reichard, Henry C., assignor)	
118,709	Foster, William, Brooklyn, N. Y. Gas-pump.....	Sept. 5, 1871
113,646	Foster, William, jr., New York, N. Y. Pneumatic-signal apparatus.....	April 11, 1871
113,647	Same.....	April 11, 1871
118,600	Foster, William G., Dansville, N. Y. Thill-coupling.....	Aug. 29, 1871
	Foster, William S. (See Stone, William C., assignor.)	
118,601	Foubert, Andre, Buffalo, N. Y. Condenser for rectifying-apparatus.....	Aug. 29, 1871
118,602	Same..... Apparatus for distilling and refining oil.....	Aug. 29, 1871
121,607	Fountain, Vincent, jr., West New Brighton, N. Y. Bung.....	Dec. 5, 1871
119,594	Foust, Henry, Mill Village, Pa. Animal-trap.....	Oct. 3, 1871
120,580	Fouzer, Robert R., Butler, Pa. Hinge.....	Nov. 7, 1871
	Fowks, James, <i>et al.</i> (See Howard, Hiland, assignor.)	
4,921	Fowle, George B., Cambridge, Mass. Ornamentation of the bottom of glasses. (Design).....	May 23, 1871
111,834	Fowle, Joseph W., Boston, Mass. Mortising-machine.....	Feb. 14, 1871
118,850	Fowler, Charles L., Baltimore, Md. Roofing-compound.....	Sept. 12, 1871
120,153	Same..... Roofing-machine.....	Oct. 17, 1871
112,136	Fowler, Edgar M., assignor to Margaretta B. McGonegal, New York, N. Y. Preserving blocks of wood.....	Feb. 23, 1871
111,051	Fowler, George, Seymour, Conn. Papering pins.....	Jan. 17, 1871
113,285	Fowler, George B., Brooklyn, N. Y. Wagon-jack.....	April 4, 1871
114,282	Fowler, George T., East Somerville, Mass. Invalid-chair.....	May 2, 1871
121,712	Fowler, Harvey, Washington, D. C. Propulsion of canal-boats.....	Dec. 12, 1871
121,713	Same.....	Dec. 12, 1871
121,714	Same.....	Dec. 12, 1871
121,094	Fowler, John N., New York, N. Y. Rocking-apparatus.....	Nov. 21, 1871
	Fowler, Jonathan O., jr. (See Tunncliffe, J. R., assignor)..... (Reissue.)	
113,040	Fowler, Rufus B., and Daniel F. Brandon, Chicago, Ill. Coating iron and steel with molten iron.....	Mar. 28, 1871
115,458	Fowler, Samuel W., Brooklyn, N. Y. Lamp-chimney.....	May 30, 1871
116,292	Same..... Lamp-burner.....	June 27, 1871
115,048	Fowler, William Henry, and William Pettingell, assignors of one-third interest to Louis Freitag, Painesville, Ohio. Cording-attachment for sewing-machines. (Antedated May 9, 1871).....	May 23, 1871
121,861	Fox, Albert, Edinburgh, Ind. Belt-shifter for spinning-jacks.....	Dec. 12, 1871
118,121	Fox, Benjamin G., Princetown, Pa. Fork for hay-elevators.....	Aug. 15, 1871
112,028	Fox, Charles James, Charlotte, N. C. Water-wheel.....	Feb. 21, 1871
116,042	Fox, Charles W., Saint Louis, Mo. Gate-latch.....	June 20, 1871
114,935	Fox, George H., Boston, Mass. Screw-tap.....	May 16, 1871
114,795	Fox, George Washington, Laramie, Wyo. Stock-car.....	May 16, 1871
120,636	Fox, John, Farmersville, Iowa. Washing-machine.....	Nov. 7, 1871
122,164	Same..... Clothes-wringer.....	Dec. 26, 1871
	Fox, Theodore, <i>et al.</i> (See Jones, Howson & Giers, assignors.)	
113,286	Fox, William, Beaver Dam, Wis. Harrow.....	April 4, 1871
5,298	Fradley, Joseph, Brooklyn, N. Y. Spoon-handle..... (Design).....	Oct. 3, 1871
117,166	Frampton, Benjamin F., Panxatawney, Pa. Churn-power.....	July 18, 1871
121,456	France, Simon W., Brooklyn, N. Y. Street-gas lamp-post.....	Dec. 5, 1871
	France, William H., and Isaac Leas. (See Leas & France.)	
121,608	Francisco, Dudley M., Three Rivers, Mich. Animal-trap.....	Dec. 5, 1871
	Franck, Arnold C. (See Kleemann, Carl J. H. F., assignor.)	
	Francis, Norton L., and Thomas C. Smith. (See Smith & Francis.)	
116,582	Francis, Ransome N., and Russel, Girard, Pa. Rotary-engine.....	July 4, 1871
	Francis, Samuel W. (See Newton, William Harrison, assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,439	Francis, Samuel W., assignor to self and William H. Newton, Newport, R. I. Shoe	Mar. 7, 1871
119,838	Frank, David, and Theophilus Snyder, Allentown, Pa. Pipe-wrench	Oct. 10, 1871
121,095	Frank, Hans H., and Peter Hansen, Richton, Ill. Wind-mill	Nov. 21, 1871
121,351	Franke, Henry, Brooklyn, N. Y. Mixer and heater for preparing concrete for pavements	Nov. 28, 1871
	Frankel, Henry U. (See McKinney, Martin V., assignor.)	
114,545	Frankel, William, Springfield, Ohio. Ratchet-drill	May 9, 1871
112,796	Frankfoder, David, Wakarusa, Ind. Churn	Mar. 21, 1871
111,189	Frankish, Charles, Chicago, Ill. Water-closet. (Antedated Jan. 14, 1871)	Jan. 24, 1871
	Franklin, Albert, Genoa Cross-Roads, Ohio. Seeding-machine. (Extension)	Nov. 9, 1871
119,024	Franklin, Alvin, Galena, Ohio. Sap-bucket holder	Sept. 19, 1871
117,761	Franklin, John B., New York, N. Y. Drawing-board	Aug. 8, 1871
111,190	Franklin, Willard G., Shelbyua, Mo. Gate	Jan. 24, 1871
5,136	Frantz, Henry J., assignor of one-half interest to William B. Whiffen, Metamora, Ill. Cattle-horn knob (Design)	July 25, 1871
112,576	Frary, George M., assignor through mesne assignments to Carpenter Sewing-Machine Needle Company, Saint Louis, Mich. Needle and holder for sewing machines	Mar. 14, 1871
113,648	Frary, James D., New Britain, Conn. Manufacture of bolsters for cutlery	April 11, 1871
	Fraser, D. R. (See Gates, Philetus W., assignor.)	
114,125	Fraser, David R., assignor to self and P. W. Gates, Chicago, Ill. Steam-engine	April 25, 1871
112,797	Fraser, John, assignor to self and John J. Hardy, Dowagiac, Mich. Horse-collar pad	Mar. 21, 1871
110,911	Fraser, Kasson, Syracuse, N. Y. Shaft-tug	Jan. 10, 1871
115,186	Frasius, William, Chatsworth, Ill. Land-measuring register	May 23, 1871
	Frauenberger, George. (See Trotter, Charles W., assignor.)	
115,725	Frayser, Seymour A., Coxsackie, N. Y. Bedstead-fastening	June 6, 1871
112,913	Frazee, Lawrence F., Jersey City, N. J. Plow	Mar. 21, 1871
114,661	Same. Grain-door for cars	May 9, 1871
121,769	Frazee, Vitruvius, assignor to self and William L. Boyyer, San Francisco, Cal. Combined latch and lock	Dec. 12, 1871
4,456	Frear, George A., assignor to Charles Holland, George A. Frear, and John M. Wilson, Chicago, Ill. Manufacture of artificial stone, stucco, &c. (Reissue)	July 4, 1871
111,336	Frear, James M., Pittstown, Pa. Damper	Jan. 31, 1871
120,426	Freck, Newton C., and Solomon Strook, Millersburgh, Pa. Wood-planing machine	Nov. 7, 1871
112,577	Frederick, Charles A., San Francisco, Cal. Potato-masher	Mar. 14, 1871
119,133	Frederick, Henry N., Hancock, N. Y. Carpenters' plane	Sept. 19, 1871
	Fredericks, Charles D. (See Brower, Henry L., assignor.)	
115,598	Free, Henry, Lewiston, Me. Camp-stool	June 6, 1871
110,841	Freed, Abraham, and Jonathan Snook, La Porte, Ind. Binding-attachment for harvesters. (Antedated Jan. 7, 1871)	Jan. 10, 1871
112,798	Freeman, Alexander H., Chicago, Ill. Telegraph-switch	Mar. 21, 1871
113,155	Freeman, Benjamin P., and Pat. Payton, Macon, Ga. Spark-arrester for locomotives	Mar. 28, 1871
114,662	Freeman, Moody G., Bloomington, Ill. Iron culvert	May 9, 1871
116,293	Freeman, Samuel B., Ashland, Ohio. Rotary steam-engine	June 27, 1871
	Same. (See Osgood, Otis S., assignor.)	
	Freeman, Thomas B., and William Hay. (See Hay & Freeman.)	
112,332	Freeman, Thompson, Westfield, Ill. Churn	Mar. 7, 1871
110,842	Freeman, Wilkerson G., Richmond, Va. Connecting-rod	Jan. 10, 1871
114,401	Freitag, Charles H., Springfield, Ill. Gate-latch	July 25, 1871
	Freitag, Louis. (See Fowler & Pettingell, assignors.)	
121,241	French, Alonzo, Philadelphia, Pa. Lantern	Nov. 28, 1871
116,174	French, Bridget, Rochester, N. Y. Mop-head	June 20, 1871
117,762	Same. Stove-pipe damper	Aug. 8, 1871
120,637	Same. Funnel	Nov. 7, 1871
121,770	Same. Culinary boiler	Dec. 12, 1871
119,025	French, Charles A., Davenport, Iowa. Piano-truck	Sept. 19, 1871
113,156	French, Daniel S., Montgomery, Ala. Coffee-pot	Mar. 28, 1871
	French, Evelyn F., New York, N. Y. Corn-husker. (Extension)	May 12, 1871
119,595	French, George, Alexandria, Va. Turn-table for transferring freight	Oct. 3, 1871
117,062	French, James C., Chicago, Ill. Vault-light	July 18, 1871
117,063	Same. same	July 18, 1871
115,839	French, John H., Burlington, Vt. School-desk	June 13, 1871
	French, John M., jr. (See Stiles, David L., assignor) (Reissue)	
112,799	French, Raymond, Seymour, Conn. Bit-brace	Mar. 21, 1871
114,936	French, Samuel, assignor to Sidney Allen, Boston, Mass. Railroad-switch	May 16, 1871
122,114	French, Samuel, assignor to self and James H. Page, Boston, Mass. Throat-check for horses	Dec. 26, 1871
	Fretts, John, and Henry A. Dierkes. (See Dierkes & Fretts.)	
	Frennd, Adolph. (See Hinden, Mathias Joseph, assignor.)	
118,921	Frental, August, New York, N. Y. Spring-lock for ventilating-sash	Sept. 12, 1871
	Same. (See Claver, Max, assignor.)	
118,358	Frey, John A., assignor to self, S. A. H. Marks, and John Walker, Washington, D. C. Coal-oil stove	Aug. 22, 1871
118,228	Frey, Joseph J. M., Sacramento, Cal. Side-arm sheath	Aug. 22, 1871
114,796	Frey, Nathaniel, Erie, Pa. Wagon-spring	May 16, 1871
111,627	Friberg, Andrew, Moline, Ill. Walking-cultivator	Feb. 7, 1871
117,616	Frick, Jacob G., Pottsville, Pa. Loom	Aug. 1, 1871
111,052	Fricke, Joseph R., Pittsburgh, Pa. Lightning-rod	Jan. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,137	Fricke, Joseph R., Pittsburgh, Pa. Lightning-rod.....	Feb. 28, 1871
121,771	Fricke, Jacob, assignor to self and Americus Warden, Cincinnati, Ohio. Hydrant.....	Dec. 12, 1871
111,445	Friedemann, August, Waverly, Iowa. Harrow.....	Jan. 31, 1871
	Friend & Smith, <i>et al.</i> (See Manning, John, jr., assignor.)	
	Friend, Franklin. (See Ward, Moses N., assignor.)	
117,877	Friend, John P., Peabody, Mass. Machine for finishing leather.....	Aug. 8, 1871
111,628	Fries, Alexander, Cincinnati, Ohio. Safety-device for hatchways.....	Feb. 7, 1871
119,134	Fries, Manasseh, assignor of one-half interest to Kreider, Zindgraf & Co., Philadelphia, Pa. Millstone dress.....	Sept. 19, 1871
118,229	Friescke, Albert C., Owasso, Mich. Compound soldering-lamp and blow-pipe.....	Aug. 22, 1871
	Friese, Charles, and Thomas N. Dixon. (See Dixon & Friese)..... (Design.)	
113,997	Frings, Charles H., assignor to self and Charles Braches, Centreton, Mo. Preparing and mashing grain.....	April 25, 1871
116,043	Same..... Fermenting mash.....	June 20, 1871
116,044	Same..... Preventing waste of alcohol in fermenting-tanks.....	June 20, 1871
121,501	Frink, Christopher L., Vernon, Conn. Machine for cleaning and finishing silk and thread.....	Dec. 5, 1871
115,187	Frisbee, Gideon, assignor to self and Samuel E. Griscom, Titusville, Pa. Rock-drilling machine.....	May 23, 1871
110,843	Frisbie, Hamlin F., Danville, Ill. Mill-bush.....	Jan. 10, 1871
111,191	Frisbie, John L., assignor to Marshall T. Davidson, Brooklyn, N. Y. Steam-boiler.....	Jan. 24, 1871
111,192	Same..... Steam-radiator.....	Jan. 24, 1871
118,007	Frisbie, Russel, Cromwell, Conn. Toy steam-engine.....	Aug. 15, 1871
118,710	Frisby, Richard, Cleveland, Ohio. Coffee and grain cleaner and separator.....	Sept. 5, 1871
115,188	Frisbush, John C. W., Philadelphia, Pa. Sample-box for cigars.....	May 23, 1871
	Fritchey, Alexander H., and Thomas S. Gates. (See Gates & Fritchey.)	
	Same..... same.....	
110,844	Fritsch, Hugo O., New York, N. Y. Fire-screen and stand.....	Jan. 10, 1871
117,763	Fritsch, Josef, Carlstadt, N. J. Holder for wax candles or tapers.....	Aug. 8, 1871
110,845	Fritzsche, Anton, New York, N. Y. Clarionet.....	Jan. 10, 1871
122,004	Fritts, Wesley, Flanders, N. J. Churn.....	Dec. 19, 1871
	Fritz, John, and John P. Griscom. (See Griscom & Fritz.)	
	Fritz, John, <i>et al.</i> (See Griscom, Griscom, Griscom & Fritz.)	
	Frost, E. W. (See Hovey, Francis, assignor)..... (Reissue.)	
120,375	Frost, Henry S., Watertown, Conn. Animal-trap.....	Oct. 31, 1871
117,531	Frost, John O., Candor, N. Y. Grain-spout.....	Aug. 1, 1871
	Same..... (See Johnson, Leonard A., assignor.)	
	Frost, Mahlon S. (See Paine, Henry M., assignor.)	
118,922	Frost, Oscar F., Monmouth, Me. Window-screen.....	Sept. 12, 1871
116,045	Frost, Phineas, Medfield, Mass. Bed-plate for paper-pulp engine.....	June 20, 1871
116,046	Frown, James, Edward Hemmings, and James Sheldon, Niles, Ohio. Process of manufacturing nail-plates and sheet-strips.....	June 20, 1871
112,236	Fry, George, Newaygo, Mich. Mode of fastening harrow-teeth.....	Feb. 28, 1871
4,922	Fry, Henry L., assignor to James L. Haven & Co., Cincinnati, Ohio. Chain-pump.....	May 23, 1871
	Same..... Chain-pump..... (Design).....	May 30, 1871
118,446	Fry, Henry R., Wabash, Ind. Picking-mechanism for looms.....	Aug. 29, 1871
112,914	Fry, John, Salisbury, Conn. Tuyere for blast-furnaces.....	Mar. 21, 1871
	Fryer, William H., <i>et al.</i> (See Parker, William F., assignor.)	
115,049	Fryer, William J., jr., New York, N. Y. Molders' slicker.....	May 23, 1871
4,645	Fuller, Andrew, and Louis P. Reichert, Buffalo, N. Y. Refrigerator ..(Reissue).....	Nov. 28, 1871
	Fuller, Fred W. (See Jordan, Henry, assignor.)	
114,663	Fuller, George C., Marcy, N. Y. Sleigh-brake.....	May 9, 1871
114,664	Fuller, George H., assignor to self, Augustus J. Fuller, Roswell A. Neale, and Amzi P. Plant, Unionville, Conn. Nut-machine.....	May 9, 1871
110,846	Fuller, George P., Humphrey, N. Y. Lamp-burner.....	Jan. 10, 1871
112,578	Fuller, Henry W., New York, N. Y. Tuck-creaser for sewing-machine.....	Mar. 14, 1871
5,289	Fuller, Levi K., assignor to J. Estey & Co., Brattleborough, Vt. Organ-case.....	Sept. 26, 1871
	Same..... Organ-case..... (Design).....	Sept. 26, 1871
5,299	Same..... Parlor-organ case..... (Design).....	Oct. 3, 1871
121,609	Same..... Tremolo for reed-organs..... (Design).....	Dec. 5, 1871
121,610	Same..... same.....	Dec. 5, 1871
112,579	Fuller, Solomon, Somers, Conn. Mowing-machine.....	Mar. 14, 1871
	Fuller, Warren & Co. (See Harwood, Luther W., assignor.)..... (Two cases.) (Design.)	
	Fullerton, George A., <i>et al.</i> (See Hodges, Samuel H., assignor.)	
111,737	Fulton, Andrew, Albany, N. Y. Purifier, condenser, &c., for gas-works.....	Feb. 14, 1871
119,926	Fulton, Bennington, Pulaski, Iowa. Combined bread-board and dough-tray.....	Oct. 17, 1871
	Funkhouser, R. M. (See Collier, Orrin, assignor.)	
	Funston, Hugh M. (See Scharf, Samuel R., assignor.)	
116,424	Furniss, Fred H., Waterloo, N. Y. Thread-cutting device for sewing-machines.....	June 27, 1871
	Furst, Bernhard, and Frederick Roth. (See Roth & Furst.)	
115,459	Furst, Conrad, Chicago, Ill. Cultivator.....	May 30, 1871
4,750	Fusary, Angelo, New York, N. Y. Statue..... (Design).....	April 4, 1871
112,440	Fyfe, George, and Chester Hard, Ottawa, Ill. Guard-finger for harvesters.....	Mar. 7, 1871
	Gable, Charles. (See Young, Charles M., assignor.)	
120,427	Gafney, Michael, Newark, N. J. Stench-trap.....	Oct. 31, 1871
	Gage, H. M. (See Tomlinson, James, assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
110,966	Gage, Walter L., Saint Louis, Mo. Saw	Jan. 17, 1871
118,359	Gaggin, Richard, Erie, Pa. Process of deodorizing hydrocarbon oils	Aug. 23, 1871
	Gaggin, Richard F., <i>et al.</i> (See Hershey, Benjamin, assignor.) (Four cases.)	
	Gaggin, Richard F., and Benjamin Hershey. (See Hershey & Gaggin.)	
121,352	Gahr, Conrad, Newark, N. J. Method of making harness-pads	Nov. 23, 1871
111,835	Gail, Titus D., Chicago, Ill. Griddle	Feb. 14, 1871
111,738	Gaines, Erasmus D., and John A. McMillen, Chicago, Ill. Pruning-shears	Feb. 14, 1871
117,878	Gaines, John Henry, Durhamville, Tenn. Wagon-hub	Aug. 8, 1871
116,425	Gaines, William C., assignor to self and Harvey B. Barnes, Salem, Va. Combined corn and cotton cultivator	June 27, 1871
119,753	Gale, Charles A., Piqua, Ohio. Apparatus for fixing photographs	Oct. 10, 1871
111,337	Gale, Charles E., Aurelius, N. Y. Carpet-stretcher	Jan. 31, 1871
116,294	Gale, D'Alembert T., Fort Wayne, Ind. Hot-air register	June 27, 1871
4,649	Gale, Daniel J., assignor of one-half interest to Aaron Huyck, Sheboygan Falls, Wis. Calendar-clock dial (Design)	Feb. 14, 1871
121,049	Gale, Moses F., New York, N. Y. Cigar-lighter	Nov. 21, 1871
	Gale, William S., deceased, by Mary I. Kelsey, administratrix, Brooklyn, N. Y. Means for rendering joints steam-tight (Extension)	July 7, 1871
120,581	Galentine, Henry, Greece, N. Y. Plow-wheel	Nov. 7, 1871
119,927	Gallagher, Henry N., Worcester, Mass. Toy. (Antedated Sept. 29, 1871)	Oct. 17, 1871
114,283	Gallagher, Joseph P., Saint Louis, Mo. Hydrant	May 2, 1871
114,284	Same Pump	May 2, 1871
	Gallaher Gold and Stock Telegraph Company. (See Gallaher, Robert H., assignor.)	
116,175	Gallaher, Robert H., New York, N. Y. Type-wheel for printing telegraphs	June 20, 1871
118,122	Gallaher, Robert H., assignor to Gallaher Gold and Stock Telegraph Company, New York, N. Y. Printing-telegraph instrument	Aug. 15, 1871
112,580	Gallatin, James, jr., New York, N. Y. Universal mandrel	Mar. 14, 1871
4,586	Gallegos, José Ramon, Cuba. Show-case (Design)	Jan. 17, 1871
	Gallentine, J. S. (See Wiggins, Jefferson G., assignor.)	
115,302	Galloway, James, Webster, Ill. Coffee-roaster	May 30, 1871
112,700	Gallup, Silas N., Macedon, N. Y. Grain-drill	Mar. 14, 1871
114,285	Gally, Merritt, Rochester, N. Y. Printing-press	May 2, 1871
4,646	Same same (Reissue)	Nov. 28, 1871
118,773	Galt, Thomas A., and George S. Tracy, Sterling, Ill. Joint for school-desks	Sept. 5, 1871
5,259	Same School-desk (Design)	Sept. 12, 1871
121,353	Same Corn-stalk cutter	Nov. 23, 1871
	Galusha, Norman H. (See Fitzmiller, August, assignor.)	
	Gamber, Jacob, and Aaron Wissler. (See Wissler & Gamber.)	
113,041	Gamble, James, San Francisco, Cal. Mechanical-telegraph instrument	Mar. 23, 1871
	Gamewell & Co. (See Crane & Rogers, assignors) (Reissue.)	
113,649	Gamewell, John N., Hackensack, N. J. Fire-alarm telegraph-apparatus	April 11, 1871
118,798	Gano, Louis H., New York, N. Y. Permutation-padlock	Sept. 12, 1871
110,644	Gantt, Lafayette, Camilla, Ga. Combined cotton-seed planter and guano-distributor	Jan. 3, 1871
112,581	Gantz, Peter V. B., assignor to Charles E. Gantz, Albany, N. Y. Tea-kettle	Mar. 14, 1871
111,629	Gard, Benjamin M., Urbana, Ohio, and Emery R. Gard, Chicago, Ill., assignors to United States Brick-Machine Company. Brick-machine	Feb. 7, 1871
116,295	Gard, Emery R., Chicago, Ill. Lawn-mower	June 27, 1871
116,296	Same Lifting-jack	June 27, 1871
118,447	Same Hoisting-apparatus	Aug. 29, 1871
120,735	Gard, Samuel F., New Orleans, La. Propulsion of vessels	Nov. 7, 1871
115,050	Gardner, Perry G., New York, N. Y. Self-coupling draw-hook and buffer	May 23, 1871
116,944	Gardner, Samuel, jr., New York, N. Y. Electro-magnetic apparatus	July 11, 1871
118,008	Same Apparatus for automatically operating gas-cocks	Aug. 15, 1871
	Same Washington, D. C. Mode of lighting gas by electricity. (Extension)	Dec. 21, 1871
121,862	Gardner, William Fitch, Bethany, Canada. Burglar-alarm	Dec. 12, 1871
111,193	Gardner, Francis A., Danbury, Conn. Caster	Jan. 24, 1871
113,867	Same Bearing-step and vertical shaft	April 18, 1871
111,053	Gardner, George, Clarksville post-office, N. J. Portable chair	Jan. 17, 1871
113,287	Same Glen Gardner, N. J. Chair	April 4, 1871
120,154	Gardner, Henry, Rodger Lowe, and Joseph and James Wood, and James Pickering, England. Spring-mattress	Oct. 24, 1871
111,630	Gardner, James, South Lee, Mass. Water-wheel	Feb. 7, 1871
118,923	Gardner, John, New York, N. Y. Steering-apparatus	Sept. 12, 1871
111,836	Gardner, Joseph, Bedford, Ind. Fire-extinguisher	Feb. 14, 1871
122,244	Gardner, Joseph, Louisville, Ky. Fire-extinguisher	Dec. 26, 1871
113,868	Gardner, Oliver L. and William, Glen Gardner, N. J. Device for adjusting mirrors	April 18, 1871
	Same Wardrobe and bedstead	Sept. 26, 1871
113,042	Gardner, William, Glen Gardner Station, N. J. Scroll-saw	Mar. 23, 1871
113,509	Same Boston, Mass. Fire-escape. (Antedated March 30, 1871)	April 11, 1871
119,754	Gardner, William, assignor to self and O. L. Gardner, Glen Gardner, N. J. Folding-chair	Oct. 10, 1871
4,291	Gardner, William R., Leonardsville, N. Y. Pessary (Reissue)	Mar. 7, 1871
117,879	Garfield, Joel, Ayer, Mass. Mill for grinding coffee, spices, &c.	Aug. 8, 1871
118,230	Garity, James, assignor to Edwin D. Gould and Albert H. Barnes, Brewer, Me. Brick-knife	Aug. 22, 1871
110,645	Garity, John, East Birmingham, Pa. Glass telegraph-insulator	Jan. 3, 1871
119,978	Garland, Converse J., Gwin Mine, Cal. Mining sluice and ripple	Oct. 17, 1871
120,958	Garland, James, assignor through mesne assignments to self and Heber Le Favour, Providence, R. I. Automatic relief-valve	Nov. 14, 1871
111,338	Garlinghouse, George B., North Madison, Ind. Road-scraper	Jan. 31, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,446	Garman, George B., Washington Township, Ind. Tempering steel.....	Jan. 31, 1871
	Same..... (See Siegfried, Alexander H., assignor.)	
	Same..... same..... (Reissue.)	
114,431	Garner, James H., Pontiac, Ill. Wash-boiler. (Antedated April 25, 1871).....	May 2, 1871
112,441	Garner, Samuel R., assignor to self and S. M. Marquett, Independence, Iowa. Dining-table.....	Mar. 7, 1871
	Garnhart, John H. (See Rice, Eli B., assignor.)	
121,611	Garratt, William T., San Francisco, Cal. Lubricator.....	Dec. 5, 1871
119,026	Garretson, John G., West Liberty, Ohio. Water-wheel.....	Sept. 19, 1871
113,998	Garrett, George, Elkhart, Ill. Hinge for gates.....	April 25, 1871
5,202	Garrett, George B., Philadelphia, Pa. Paper-weight..... (Design).....	Aug. 15, 1871
121,863	Garrett, James H., Greencastle, Ind. Harness-pad.....	Dec. 12, 1871
113,157	Garrett, Jonathan, and Jonas E. Rauch, Selin's Grove, Pa. Feather-renovator.....	Mar. 28, 1871
113,757	Garrett, William H., Cannonsburgh, Pa. Fire-place grate.....	April 18, 1871
111,447	Garrick, Thomas, Providence, R. I. Sewing-machine.....	Jan. 31, 1871
114,665	Same..... Household implement.....	May 9, 1871
119,979	Same..... Machine for making eyelets.....	Oct. 17, 1871
120,189	Garrigues, Edward H., Saint Louis, Mo. Ho-elevator.....	Oct. 24, 1871
	Garrison, David, and Daniel A. Hall. (See Hall & Garrison).... (Three cases.)	
	Garrison, George T. (See Porter, Benjamin F., assignor.)	
121,864	Gartner, Gotthelf, and Charles Diebold, Lebanon, Pa. Method of operating locomotive steam-engines.....	Dec. 12, 1871
118,523	Garton, William, England. Preparation of fermentable saccharine matter.....	Aug. 29, 1871
118,524	Same..... Manufacture of inverse sugar for brewing, &c.....	Aug. 29, 1871
114,546	Garver, Daniel, assignor to self and Cyrus Garver, Ringgold, Md. Grain-separator.....	May 9, 1871
114,547	Same..... Fan-blast regulator.....	May 9, 1871
	Garvey, James. (See Kimball, Matthew H., assignor.)	
120,959	Garvin, Benjamin, Oshkosh, Wis. Steam-boiler feed-water heater.....	Nov. 14, 1871
119,928	Garvin, Benjamin, assignor of one-half interest to Henry Hull, Oshkosh, Wis. Spark-arrester for locomotives.....	Oct. 17, 1871
116,426	Gass, Robert, assignor to Eddy, Corse, & Co., Troy, N. Y. Cooking-stove.....	June 27, 1871
	Gassett, Edward. (See Tirrell, Jacob P., assignor.)	
	Same..... same..... (Reissue.)	
114,126	Gaston, Henry A., San Francisco, Cal. Washing-machine.....	April 25, 1871
118,525	Gaston, Jeremiah C., Cincinnati, Ohio. Envelope-machine.....	Aug. 29, 1871
	Gates, Cecil L., and Charles M. Brown. (See Brown & Gates.)	
118,924	Gates, Edward M., Watertown, N. Y. Blacking-box.....	Sept. 12, 1871
119,596	Gates, John, Portland, Oreg. Wrench.....	Oct. 3, 1871
119,597	Same..... Surface-blow for steam-boilers.....	Oct. 3, 1871
120,428	Same..... Spark-arrester for steam-boilers.....	Oct. 31, 1871
120,870	Same..... Ash-pan for boilers.....	Nov. 14, 1871
	Gates, P. W. (See Fraser, David R., assignor.)	
111,339	Gates, Philetus W., assignor to self and D. R. Fraser, Chicago, Ill. Sash-holder.....	Jan. 31, 1871
112,029	Gates, Stephen F., assignor to the Lowell Oil-Cup Company, Cambridge, Mass. Lubricator.....	Feb. 21, 1871
115,189	Gates, Thomas S., and Alexander H. Fritchey, Columbus, Ohio. Vapor-burner.....	May 23, 1871
119,539	Same..... Vapor-burner. (Antedated Sept. 25, 1871).....	Oct. 10, 1871
	Gates, William. (See Caple, Chauncey S., assignor.)	
119,457	Gathmann, Louis, Chicago, Ill. Combined sash-holder and blind-opener.....	Oct. 3, 1871
112,800	Gathright, Josiah B., Louisville, Ky. Loop for stirrups.....	Mar. 21, 1871
113,158	Gatling, James H., Murfreesborough, N. C. Treating the timber of old-field pine.....	Mar. 28, 1871
114,127	Same..... Cotton and corn-stalk chopper.....	April 25, 1871
112,138	Gatling, Richard J., Indianapolis, Ind. Revolving-battery gun.....	Feb. 28, 1871
122,005	Gavan, William S., Savannah, Ga. Advertising-album.....	Dec. 19, 1871
121,354	Gavett, George L., Sandstone, Mich. Device for converting reciprocating into rotary motion.....	Nov. 28, 1871
110,967	Gavitt, Lorenzo D., Los Angeles, Cal. Portable camp-grate. (Antedated Jan. 7, 1871).....	Jan. 17, 1871
118,799	Gay, Azel, Rochester, N. Y. Boiler for heating buildings.....	Sept. 12, 1871
	Gay, Joel. (See Harrigan, Dennis, assignor.)	
	Gay, John. (See Kerr, William, assignor)..... (Two cases.) (Design.)	
113,869	Gaylord, Albert A., East Cleveland, Ohio. Lightning-rod.....	April 18, 1871
113,510	Gaylord, Charles, Washington, D. C. Railroad-spike.....	April 11, 1871
115,840	Gaylord, Edward L., Terryville, Conn. Pin-clamp for riveting.....	June 13, 1871
117,064	Same..... Bridgeport, Conn. Key for padlocks.....	July 18, 1871
121,096	Same..... Key for sewing-machine locks.....	Nov. 21, 1871
114,432	Gear, Nathaniel, Newark, Ohio. Lantern.....	May 2, 1871
112,442	Geary, M. Boland, New York, N. Y. Step-ladder.....	Mar. 7, 1871
120,376	Gebby, William L., New Richland, Ohio. Apparatus for regulating the speed of machinery.....	Oct. 31, 1871
116,427	Gebhard, August, and John Blodan, Indianapolis, Ind. Dentists' and barbers' chair.....	June 27, 1871
113,870	Gebhart, Daniel, assignor to self and Peter Weimer, Salamonia, Ind. Bee-hive.....	April 18, 1871
115,841	Geddes, William B., Rochester, N. Y. Hot-air furnace.....	June 13, 1871
120,259	Gee, William, New York, N. Y. Apparatus for discharging acid carbons.....	Oct. 24, 1871
120,510	Gee, William V., Philadelphia, Pa. Loom.....	Oct. 31, 1871
	Geer, E., et al. (See Hershey, Benjamin, assignor)..... (Four cases.)	
	Same..... (See Hershey & Gaggin, assignors.)	
	Geer, George, et al. (See Boon, Osborn & Geer.)	
120,736	Gehr, John, Clear Spring, Md. Wheelbarrow.....	Nov. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Geiger, Josiah. (<i>See</i> Calkins, James B., assignor.)	
	Geiser Threshing-Machine Company. (<i>See</i> Dingee, William W., assignor.)	
4,254	Geissenhainer, Charles P., assignor to Esek Bussey and Charles A. McLeod, Pittsburgh, Pa. Cooking-stove (Reissue) ..	Feb. 7, 1871
116,828	Geller, Charles C., Albany, N. Y. Shoe	July 11, 1871
116,583	Gentry, John W., and George W. Barcus, Peytona, W. Va. Canal-lock	July 4, 1871
	Genung, Alfred V. C. (<i>See</i> Crosel mire, Charles, assignor.)	
111,054	George, Alfred M., Sand Fly, Tex. Fire-tongs	Jan. 17, 1871
111,194	Same..... Pen-holder	Jan. 24, 1871
113,758	George, Benjamin George, England. Ornamentation of metal, glass, &c	April 18, 1871
114,797	George, Emanuel M., Three Rivers, Mich. Car-coupling	May 16, 1871
119,598	George, Levi F., assignor of two-thirds interest to Algernon S. Austin, San Francisco, Cal. Rat and mouse trap	Oct. 3, 1871
117,065	George, Margaret N., Evansville, Ind. Medicine for cure of hog and chicken cholera	July 18, 1871
116,047	George, Richard F., Palmyra, Va. Surveying-instrument	June 20, 1871
113,043	George, Robert W., Boston, Mass. Stave-sawing machine. (Antedated March 23, 1871)	Mar. 28, 1871
113,511	Gerber, Julius, and Horace Brown, Rockford, Ill. Cultivator	April 11, 1871
119,027	Gerdwood, William Wallace, England. Gasket-packing	Sept. 19, 1871
121,164	Gergen, Nicholas, Buffalo, N. Y. Cooking-stove	Nov. 21, 1871
121,772	Gerhart, John A., Easton, Pa. Wagon-brake	Dec. 12, 1871
	Gerner, Charles, and Frank Tiesing. (<i>See</i> Tiesing & Gerner) (Two cases.)	
116,176	Gerner, Henry, New York, N. Y. Gas-regulator	June 20, 1871
113,999	Gernert, Charles, assignor to self and Edward Kahre, Philadelphia, Pa. Apparatus for stamping wearing-apparel, &c	April 25, 1871
	Gerry, Albert, and Henry H. Morgan. (<i>See</i> Morgan & Gerry.)	
	Gerties, Louis. (<i>See</i> Lee, Leroy E., assignor.)	
	Gessner, Gustavus A., and Ralph P. Buckland, jr. (<i>See</i> Buckland, jr., & Gessner.)	
	Getchell, Charles E., <i>et al.</i> (<i>See</i> Parsons, Getchell & Fairfield.)	
112,701	Getty, Henry, Hoboken, N. J. Ale or beer cock	Mar. 14, 1871
113,603	Getty, Henry, assignor to Lucien Knapp, Hoboken, N. J. Attachment to gas-fitters' ganges	Aug. 29, 1871
120,960	Gibbons, Dwight, Rochester, N. Y. Seated urinal	Nov. 14, 1871
120,961	Same..... Bidet or hip-bath	Nov. 14, 1871
	Gibbons, George. (<i>See</i> McKay, John R., assignor.)	
113,871	Gibbons, James S., Philadelphia, Pa. Slide for drawers	April 18, 1871
120,737	Gibbs, Dalphon L., assignor to R. Ball & Co., Worcester, Mass. Mortising-machine	Nov. 7, 1871
	Gibbs, Fred. R. (<i>See</i> Smith, Henry, assignor.)	
4,647	Gibbs, George and William, Canton, Ohio. Whiffletree (Reissue) ..	Nov. 28, 1871
	Gibbs, James E. A., Steele's Tavern, Va. Sewing-machine (Extension) ..	June 1, 1871
116,297	Gibbs, Lucius H., assignor to self and Philo Remington, Brooklyn, N. Y. Rotary spading-machine	June 27, 1871
116,048	Gibbs, Martin, Canton, Ohio. Plow	June 20, 1871
4,412	Gibbs, Pierre L., Dunleith, Ill. Lock-nut (Reissue) ..	June 6, 1871
	Gibbs, Willis, and Dwight Hitchcock. (<i>See</i> Hitchcock & Gibbs.)	
112,237	Gibbnd, Eli B., assignor through mesne assignments to John Batchelder, Waterbury, Conn. Neck-tie retainer	Feb. 28, 1871
117,764	Gibson, Charles T., Baltimore, Md. Lock for railroad-cars	Aug. 8, 1871
	Gibson, Corodon D. W., and Martin L. Munger. (<i>See</i> Munger & Gibson.)	
120,055	Gibson, David D., Springville, Iowa. Plow-colter	Oct. 17, 1871
117,066	Gibson, John, jr., Albany, N. Y. Table-stand for pitchers, &c. (Antedated July 17, 1871)	July 18, 1871
117,617	Same..... Tea-kettle and other vessels	Aug. 1, 1871
117,785	Same..... Table-caster	Aug. 8, 1871
117,766	Same..... Saucer, dish, &c.	Aug. 8, 1871
118,925	Same..... Tree-box	Sept. 12, 1871
119,086	Same..... Table basket or dish	Sept. 19, 1871
119,929	Same..... Bank-note	Oct. 3, 1871
117,402	Gibson, Joshua R., and James Powell, Cincinnati, Ohio. Waste-way stopper	July 25, 1871
	Gibson, Robert. (<i>See</i> Smith, Edward H., assignor.)	
110,912	Gibson, Samuel, assignor to self, Alexander L. Hayes, and J. W. G. Wierman, Lancaster, Pa. Rotary engine	Jan. 10, 1871
117,167	Gibson, Stephen A., and James B. De Haas; said De Haas assignor to William Hoover, Clearfield, Pa. Scrubbing-brush	July 18, 1871
119,135	Gibson, William, assignor to the American Coal-Gas Light Improvement Company, Cambridge, Mass. Apparatus for the manufacture of coal-gas.	Sept. 19, 1871
	Gibson, William A., and John J. K. Boote. (<i>See</i> Boote & Gibson.)	
119,929	Gibson, William F., Ryegate, Vt. Evaporator for sap, &c.	Oct. 17, 1871
	Gibson, William T. (<i>See</i> Wilkinson, Asbury, assignor.)	
115,303	Giddings, Isaac E., Springfield, Mass. Steam-trap	May 30, 1871
110,646	Gidley, Robert, Lagrangeville, N. Y. Gate	Jan. 3, 1871
117,403	Same..... Moore's Mill, N. Y. same	July 25, 1871
220,261	Giebrich, Louis, Ottumwa, Iowa. Combined burglar and fire alarm	Oct. 24, 1871
	Giebrick, George. (<i>See</i> Newlove, Matthew, assignor.)	
113,288	Giffard, William R., William R. jr., and James A., Milo, Me. Loom	April 4, 1871
122,165	Giffing, John C., New York, N. Y. Head-rest for car-seats	Dec. 26, 1871
110,968	Gifford, Alden and Zenas A., Somerset, N. Y. Churn	Jan. 17, 1871
	Gifford, A. T., and George W. Brown. (<i>See</i> Brown & Gifford.)	
112,238	Gifford, Edwin B., Westport, Mass. Wrench and oiler. (Antedated Feb. 22, 1871)	Feb. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,798	Gifford, Leander C., Monticello, Ill. Compound for preserving fruit-trees	May 16, 1871
	Gifford, Samuel James. (See Averill, Benjamin F., assignor.)	
113,759	Gifford, Thomas J., Salem, Mass. Scuttle-fastening	April 18, 1871
4,353	Gifford, Walter C., Jamestown, N. Y. Stanchion	April 25, 1871
115,304	Same	May 30, 1871
122,166	Gilberds, James, Jamestown, N. Y. Butter-tub	Dec. 26, 1871
4,563	Gilbert & Barker Manufacturing Company. (See Barker, John F., assignor.)	
4,627	Gilbert, Andrew, Boston, Mass. Type	Jan. 10, 1871
118,360	Same	Feb. 7, 1871
	Gilbert, Charles R., High Point, N. C. Garden-hoe	Aug. 22, 1871
	Gilbert, George, <i>et al.</i> (See Shortt, Edward G., assignor)	
	Gilbert, John. (See Case, James W., assignor.)	
113,417	Gilbert, John T., Asbury, Ill. Motive-power apparatus	April 4, 1871
115,726	Gilbert, Lucien M., Cow Run, Ohio. Valve of steam-pumping engines	June 6, 1871
	Gilbert, M. S., <i>et al.</i> (See Dotterer, Davis H., assignor.)	
116,001	Gilbert, Sheldon P., Racine, Wis. Combined ligature, protector, and fertilizing bag for fruit trees	June 13, 1871
113,418	Gilbert, Thomas S., Birmingham, Conn. Skeleton-corset	April 4, 1871
113,419	Same	April 4, 1871
	Gilbert, William L. (See Janney, Nathan L., assignor.)	
	Gilbreath, Whitney, and John Criley. (See Criley & Gilbreath.)	
114,937	Giles, Abner R., Adams, N. Y. Wagon-jack	May 16, 1871
	Giles, Alonzo M., Boston, Mass. Gas-generator	Mar. 16, 1871
	Gillfillan, William, and Frederick Glasson. (See Glasson & Gillfillan.)	
115,950	Gillham, William, Richmond, Va. Process and apparatus for the manufacture of sparkling wine	June 13, 1871
111,195	Gilkinson, Rebecca, New York, N. Y. Medical compound for the cure of rheumatism	Jan. 24, 1871
114,128	Gill, Alpheus, Holmes' Hole, Mass. Connection of booms to masts	April 25, 1871
113,872	Gill, Andrew J., Denver, Colo. Fence-post	April 18, 1871
4,696	Gill, George, assignor to Reed & Barton, Taunton, Mass. Pedestal for cake-dish	Mar. 7, 1871
4,812	Same	April 18, 1871
4,813	Same	April 18, 1871
5,442	Same	Dec. 19, 1871
	Gill, Ira, Walpole, Mass. Machinery for forming hat-bodies	Jan. 11, 1871
113,512	Gill, John L., jr., Columbus, Ohio. Machine for tapping nuts	April 11, 1871
	Gillam, Harvey E. (See McCullum, James, assignor.)	
117,067	Gillam, John W., assignor to self and H. C. Kelsey, Newton, N. J. Car-coupling.	July 18, 1871
115,951	Gillespie, James P., San Francisco, Cal. Atmospheric-pressure attachment for dental plates	June 13, 1871
121,283	Gillespie, Richard S., New York, N. Y. Locomotive	Nov. 28, 1871
111,631	Gillespie, Robert T., Millport, Ohio. Clod-fender	Feb. 7, 1871
115,599	Gillett, George D., Meridian, N. Y. Gig-saddle	June 6, 1871
120,262	Gillett, Webster, assignor to self, Hall Hugus, and Charles M. Gillett, Allegheny, Pa. Telegraph-apparatus	Oct. 24, 1871
121,773	Gillette, Henry S., New Preston, Conn. Machine for sawing stone	Dec. 12, 1871
116,428	Gillham, Samuel J., William Capp Taylor, and James W. Stolle, assignors to said Gillham and Taylor, Vandalia, Ill. Gang-plow	June 27, 1871
110,969	Gilliam Algernon, Pittsburgh, Pa. Harness-saddle	Jan. 17, 1871
116,945	Same	July 11, 1871
116,946	Same	July 11, 1871
122,006	Gillies, James, Great Britain. Bung-inserter	Dec. 19, 1871
116,298	Gillies, James W., New York, N. Y. Process of roasting coffee	June 27, 1871
116,299	Same	June 27, 1871
116,429	Gilliland, Ezra T., assignor to Hiram D. Rogers, Cincinnati, Ohio. Dial-telegraph apparatus	June 27, 1871
116,430	Same	June 27, 1871
116,431	Gilliland, Henry C., Wellsville, Mo. Car-coupling	June 27, 1871
120,962	Gillis, James H., assignor to Joseph J. Walton, Washington, D. C. Rigging-clamp	Nov. 14, 1871
	Gilman, Albert H. (See Lothrop, Henry O., assignor)	
113,044	Gilman, Charles B., Brooklyn, N. Y. Method of bending compressed wood	Mar. 28, 1871
	Gilman, Charles E., and Thomas H. Brown. (See Brown & Gilman.)	
114,000	Gilman, James R., assignor to Studebaker Bros. Manufacturing Company, South Bend, Ind. Buggy	April 25, 1871
	Gilmor, Moses. (See Cole, Calvin, assignor.)	
110,759	Gilmore, David, and William W. Forrest, assignors to George Laidlow, Peotone, Ill. Excavator	Jan. 3, 1871
121,865	Gilmore, Edward T., New York, N. Y. Barrel-fastening	Dec. 12, 1871
115,600	Gilmore, James T., and John S. Crane, Lake Village, N. H. Machine for dressing millstones	June 6, 1871
117,767	Gilmore, Weller S., Chester, Ohio. Sap-spout	Aug. 8, 1871
113,873	Gilmore, William, assignor to self and Henry M. Rogers, Hudson, N. J. Tensioning-machine	April 18, 1871
4,962	Gilson, Harlow, and Charles F. Southwick, Nashua, N. H. Bracket	May 30, 1871
113,045	Gibson, Samuel D., Syracuse, N. Y. Manufacture of salt from brine	Mar. 28, 1871
4,399	Same	May 30, 1871
119,136	Same	Sept. 19, 1871
121,866	Gingrich, Henry B., Bradford, Ohio. Rock-drill	Dec. 12, 1871
112,584	Gipson, Reuben, Shelby, Ohio. Fanning-mill	Mar. 14, 1871
112,585	Girard, Frejus, Cuba. Electrical alarm-lock	Mar. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,840	Gire, John, Londen City, Ill. Churn	Oct. 10, 1871
114,548	Giroux, Benjamin, Chicago, Ill. Window-screen	May 2, 1871
112,139	Gisler, Joseph H., Saint Louis, Mo. Bee-hive	Feb. 28, 1871
119,630	Gissinger, Samuel, Pittsburgh, Pa. Bed-bottom	Oct. 3, 1871
113,874	Givandau, Antoine, Washington, D. C. Carpet-fastener	April 18, 1871
112,583	Gjers, John, <i>et al.</i> (See Jones, Howsen & Gjers.)	
116,300	Gladding, Charles E., Towanda, Pa. Plaster-sower	Mar. 14, 1871
116,432	Same.....Hay-elevator	June 27, 1871
	Gladwin, Russell S., West Meriden, Conn. Scissors	June 27, 1871
	Glaeser, Charles T., and George C. Hohenstein. (See Hohenstein & Glaeser.)	
120,263	Glass, George W. (See Brundred, William J., assignor).....(Reissue.)	
	Glass, George W., assignor to self and William J. Brundred, Pittsburgh, Pa. Oil-tank	Oct. 24, 1871
114,549	Glass, Homer, Racine, Wis. Horse-power	May 9, 1871
117,404	Glass, James H., assignor through mesne assignments to Louis J. Glass, McGregor, Iowa. Gang-plow	July 25, 1871
114,286	Glass, John, assignor to George H. Sanborn, Green Point, N. Y. Book-binding machine	May 2, 1871
116,700	Glass, Martin A., Independence, Iowa. House for the management of bees	July 4, 1871
119,755	Glasson, Frederick, New York, N. Y., and William Gilfillan, Paterson, N. J. Valve-movement	Oct. 10, 1871
	Glazier, Theodore C. (See Plagge, Charles, assignor.)	
112,702	Glenn, Joshua Beattie. (See Ellis, Francis M., assignor.)	
116,301	Glidden, Charles W., assignor to McKay Heeling Machine Association, Lynn, Mass. Machine for making boot and shoe heels	Mar. 14, 1871
	Glues, Dearborn P., assignor to Daniel M. Robertson, Manchester, N. H. Spindle for screw-machines	June 27, 1871
116,433	Globe Nail Company. (See Hall, George L., assignor.)	
119,028	Glover, Claude, New York, N. Y. Bottle-stopper	June 27, 1871
117,618	Same.....Siphon-bottle	Sept. 19, 1871
4,669	Glover, Ives, Newtown, Conn. Ox-bow joint	Aug. 1, 1871
111,196	Glover, Warren, assignor to Ai B. Shaw, Millbury, Mass. Treadle-attachments for sewing-machines	Dec. 12, 1871
119,344	Glue, William, Muskegon, Mich. Spring-catch for doors	Jan. 24, 1871
118,711	Glynn, Martin T., and John L. Goodman, Boston, Mass. Seat for horse-cars	Sept. 26, 1871
	Glynn, Michael A., Cuba. Spark-arrester	Sept. 5, 1871
121,774	Gobble, W. S. (See Burger, Lewis, assignor.)	
118,361	Goddard, Alfred E., Essex, Conn. Lifting-jack	Dec. 12, 1871
4,318	Goddard, Curtis, Alliance, Ohio. Combined line-holder and wardrobe-hook	Aug. 22, 1871
111,837	Goddard, Kingston, assignor to self and John P. Adams, Richmond, N. Y. Water-pitcher and other articles	April 4, 1871
	Goddu, Louis, assignor to Elmer Townsend, Boston, Mass. Machine for nailing shoe-soles with wire	Feb. 14, 1871
120,155	Same.....Machine for nailing shoe-soles	Oct. 24, 1871
122,167	Godefroy, Leon, Pulaski, Tenn. Billiard-register	Dec. 26, 1871
111,448	Godfrey, Benjamin D., assignor to William Clafin, trustee of the American Wire-Quilted Sole Association, Milford, Mass. Boot and shoe sole	Jan. 31, 1871
112,333	Godfrey, Joseph S., assignor to self and Sears M. Loveridge, Leslie, Mich. Attachment for revolving mold-board for plows	Mar. 7, 1871
113,760	Same.....Rochester, Pa. Revolving mold-board for plows	April 18, 1871
114,002	Same.....Attachment of revolving mold-boards to plows	April 25, 1871
120,264	Godfrey, Joseph S., assignor to self, Sears M. Loveridge, and James Irwin, Leslie, Mich. Propulsion of vessels	Oct. 24, 1871
117,619	Godwin, Henry I., Windsor, N. C. Dash-board for vehicles	Aug. 1, 1871
121,355	Godwin, Thomas W., Norfolk, Va. Oscillating-engine	Nov. 28, 1871
117,715	Goetz, John, West Bend, Wis. Fanning-mill	Aug. 1, 1871
111,528	Goetz, Sebastian, Reed's Mills, Ohio. Bedstead-fastening. (Antedated Jan. 25, 1871)	Feb. 7, 1871
	Goeway, John A. (See Vedder & Heister, assignors).....(Design.)	
112,586	Goff, Henry J., Dubuque, Iowa. Lamp	Mar. 14, 1871
113,650	Same.....Combined lamp and reflector	April 11, 1871
	Goff, James W., and Charles B. Jarvis. (See Jarvis & Goff.)	
	Goffrie, Charles F. L. (See Schucht, John H., assignor.)	
4,643	Gold and Stock Telegraph Company. (See Edison, Thomas A., assignor.)	
	Gold, Samuel F., and William A. Foscett, assignor through mesne assignments to the Union Steam and Water-Heating Company, New York, N. Y. Steam-heating apparatus	Nov. 21, 1871
117,532	Gold, Stephen J., Cornwall, Conn. Heating stove and furnace	Aug. 1, 1871
116,434	Golling, William H., <i>et al.</i> (See Balch, William L., assignor.)	
121,356	Goldsborough, John, Philadelphia, Pa. Stamp-canceller	June 27, 1871
	Goldsmith, Bernard, assignor to Jenny Goldsmith, Newark, N. J. Binder for sewing-machines	Nov. 23, 1871
111,529	Goldsmith, Francis J., assignor of one-half interest to Peter F. Young, Concord, Ohio. Invertible trough	Feb. 7, 1871
	Goldthwaite, John R., <i>et al.</i> (See Parker, William F., assignor.)	
115,460	Goldtry, George H., and Frederick W. Hogarth, Port Allegheny, Pa. Medical compound	May 30, 1871
120,963	Gomez, Edwin, New York, N. Y. Mode of exploding torpedoes. (Antedated Nov. 9, 1871)	Nov. 14, 1871
122,245	Same.....Explosive compound. (Antedated Dec. 20, 1871)	Dec. 26, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,701	Gommenginger, Bartholomew, Rochester, N. Y. Hot-air furnace	July 4, 1871
116,584	Gooch, Charles, Cincinnati, Ohio. Ice-cream freezer	July 4, 1871
114,799	Good, Jacob L., assignor to self and Jacob Dyer, Elizabethtown, Pa. Meat-chopper	May 16, 1871
112,801	Good, Jonathan, Lancaster, Pa. Vise for joiners' use	Mar. 21, 1871
115,461	Goodale, Fred. W., and John J. Brennan, Danbury, Conn. Clothes-drier	May 30, 1871
120,056	Goodale, Samuel N., Saint Louis, Mo. Lubricator for steam and air engines	Oct. 17, 1871
120,429	Same..... Mode of operating the brakes of railroad-cars	Oct. 31, 1871
114,800	Goodchild, George H., Centreville, N. J. Joiners' clamp	May 16, 1871
114,801	Same..... same	May 16, 1871
	Goodell, Anthony W., and Thomas W. Johnson, jr. (See Johnson, jr., & Goodell. (Reissue.)	
5,316	Goodell, Bardwell A., assignor to E. Howard & Co., Waltham, Mass. Watch-hand	Oct. 17, 1871
110,913	Goodes, Ebenezer A., Philadelphia, Pa. Shutter-fastener	Jan. 10, 1871
112,703	Same..... Staining glass	Mar. 21, 1871
112,443	Goodes, Ebenezer A., assignor to Philadelphia Patent and Novelty Company, Philadelphia, Pa. Oil-cloth printing-machinery	Mar. 7, 1871
121,506	Goodfellow, John H., Troy, N. Y. Auxiliary air-chamber for stoves	Dec. 5, 1871
119,514	Goodfellow, John H., assignor to Sweet, Quimby & Perry, Troy, N. Y. Cooking-stove	Oct. 3, 1871
4,977	Goodhue, Charles W., assignor to Edward P. Woods, Daniel Sherwood, and Cyrus H. Latham, Lowell, Mass. Napkin-ring. (Design)	June 6, 1871
117,272	Same..... Wire-blank for napkin-rings, cruet-holders, &c.	July 25, 1871
110,914	Goodin, John, Joliet, Ill. Wrench	Jan. 10, 1871
119,458	Goodman, Czar T., Cleveland, Ohio. Machine for clothing organ and melodeon valves	Oct. 3, 1871
	Goodman, John L., and Martin T. Glynn. (See Glynn & Goodman.)	
120,156	Goodrich, Albert J., assignor to Turner, Seymour & Judds, Wolcottville, Conn. Hook for hats, coats, &c.	Oct. 24, 1871
121,775	Goodrich, Harry C., assignor to Nelson Barnum, Chicago, Ill. Cording-attachment for sewing-machines	Dec. 12, 1871
	Goodrich, Henry O., <i>et al.</i> (See Hatch, Warren D., assignor.)	
111,632	Goodrich, James, and Henry J. Colburn, Fitchburgh, Mass. Planing-machine	Feb. 7, 1871
114,129	Same..... Self-oiling pulley	April 25, 1871
115,305	Goodrich, Levon S., Waverly, Tenn. Apparatus for feeding blast-furnaces	May 30, 1871
120,871	Same..... Manufacture of iron	Nov. 14, 1871
	Goodsell, Bennett, <i>et al.</i> (See Bean, John, jr., assignor.)	
116,829	Goodsell, George, and Bennett J., and John Bean, jr., Pentwater, Mich. Refuse-burning furnace	July 11, 1871
116,302	Goodwin, Lewis, Bangor, Me. Sash-balance	June 27, 1871
	Goodwin, M. G. (See Ells, George F., assignor.)	
4,563	Goodwin, William, assignor through mesne assignments to Edward L. Baker, Henry Knight, and Edwin Dayton, New Haven, Conn. Machine for making cement-pipe	Sept. 19, 1871
111,633	Goodwin, William F., Metuchen, N. J. Harvester	Feb. 7, 1871
111,634	Same..... Horse-power	Feb. 7, 1871
113,526	Same..... Harvester	Aug. 29, 1871
113,159	Goodwin, Williamson, and Sinclair D. G. Niles, Helena, Ark. Cotton-picker	Mar. 28, 1871
111,924	Goodwyn, George W., Petersburg, Va. Horse-holder attachment to carriages	Feb. 21, 1871
116,702	Goodyear, Albert, 2d, Hamlin, Conn. Axle box	July 4, 1871
111,197	Goodyear, Charles, jr., New Rochelle, N. Y. Machine for sewing boots and shoes	Jan. 24, 1871
112,802	Same..... Machine for sewing boots and shoes	Mar. 21, 1871
116,947	Same..... Sewing-machine for boots and shoes	July 11, 1871
113,420	Goodyear, Charles, jr., New Rochelle, and José Da Silva, Williamsburgh, N. Y., assignors to Charles Goodyear, jr. Boot and shoe sole	April 4, 1871
118,851	Goodyear, George, New York, N. Y. Shank for boots and shoes. (Antedated Aug. 25, 1871)	Sept. 12, 1871
117,533	Goodyear, Robert Burns, Wilmington, Del. Loom	Aug. 1, 1871
119,459	Same..... Loom-harness operating-mechanism	Oct. 3, 1871
115,190	Goolman, William P., Kansas City, Mo. Platform-scale	May 23, 1871
121,612	Gordon, Alphonso E., New Brunswick, N. J. Grain-car	Dec. 5, 1871
113,421	Gordon, Charles M., La Porte, Ind. Plow-colter	April 4, 1871
114,666	Gordon, Frederick W., Ironton, Ohio. Steam-boiler	May 9, 1871
120,377	Gordon, George P., Rahway, N. J. Printing-press	Oct. 31, 1871
116,830	Gordon, James W. W., Newport, Ky. Treadle for sewing-machines	July 11, 1871
113,875	Gordon, William, assignor to self and Andrew McCambridge, Philadelphia, Pa. Water-closet valve	April 18, 1871
111,530	Gore, Myron, Ottawa, Ill. Feed-grinder	Feb. 7, 1871
	Gorham Manufacturing Company. (See Wilkinson, George, assignor.) (Three cases.) (Design.)	
121,613	Gorham, Marquis L., Rockford, Ill. Cultivator	Dec. 5, 1871
5,137	Gorham, William B., Boston, Mass. Hand-stamp	July 25, 1871
	Same..... (See Weeden, William N., assignor.) (Design.)	
111,635	Gormly, Charles M., Pittsburgh, Pa. Hair-pin	Feb. 7, 1871
114,667	Gorrell, Thomas, Warren, R. I. Let-off mechanism for looms	May 9, 1871
121,357	Gortner, Henry, Nashport, Ohio. Corn-planter	Nov. 28, 1871
116,703	Gorton, Daniel J., Quincy, Ill. Pump	July 4, 1871
	Gorton, John, jr. (See Miller & Hannah, assignors.)	
117,068	Gorton, William, New York, N. Y. Window-curtain roller	July 18, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,636	Goshorn, Jacob S., Fort Wayne, Ind. Iron abutment for bridges.....	Feb. 7, 1871
119,345	Gosline, John H., Hampton, Va. Marine railway.....	Sept. 26, 1871
113,259	Goss, Keyes H., Cedar Springs, Mich. Clothes-pin.....	April 4, 1871
	Goss, Leonard, <i>et al.</i> (See Heath, Elander, assignor.)	
114,001	Gosson, Louis C., assignor to self and John O. Raum, Trenton, N. J. Burglar-alarm and hotel-room indicator.....	April 25, 1871
119,460	Gottschalk, August, Napa, Cal. Apparatus for clarifying wines.....	Oct. 3, 1871
114,130	Gouch, Lyman A., Yonkers, N. Y. Detachable fluid-reservoir for street-lamps.	May 9, 1871
121,165	Same..... Lamp-post.....	Nov. 21, 1871
116,049	Gouge, Henry A., Brooklyn, N. Y. Ventilator.....	June 20, 1871
114,130	Gough, John, England. Printing-press.....	April 25, 1871
121,715	Gould, Albert R., Carrollton, Ohio. Photographic back-ground.....	Dec. 12, 1871
	Gould, Edwin D. (See Garity, James, assignor.)	
117,168	Gould, Hiram Varney, Dover, N. H. Boot and shoe.....	July 13, 1871
	Gould, John C., Oxford, N. J. Nail-plate feeding-machine..... (Extension)	May 12, 1871
119,228	Same..... same.....	Sept. 26, 1871
120,190	Same..... same.....	Oct. 24, 1871
112,444	Gould, Lyman, Norwich, Conn. Tenoning-machine.....	Mar. 7, 1871
110,847	Gould, Marcus B., assignor to self and Winfield S. Shaw, Buffalo, N. Y. Hide-working machine.....	Jan. 10, 1871
	Gould, Marcus B., and Winfield S. Shaw. (See Shaw & Gould.)	
121,367	Gould, Ovid Miner, Montreal, Canada. Grain-carrier.....	Dec. 12, 1871
120,265	Gould, Simeon L., Skowhegan, Me. Paper-pulp engine.....	Oct. 24, 1871
5,177	Gould, William B., New York, N. Y. Stair-rod..... (Design)	Aug. 8, 1871
5,178	Same..... same..... (Design)	Aug. 8, 1871
5,203	Same..... Stair-rod fastening..... (Design)	Aug. 15, 1871
	Same..... (See Hutchison, Robert, assignor.)	
121,358	Gould, William F., Davenport, Iowa. Steam-valve.....	Nov. 23, 1871
121,457	Goulding, Alfred, Worcester, Mass. Oscillating-engine.....	Dec. 5, 1871
117,273	Goulding, Francis Robert, Roswell, Ga. Pencil-case.....	July 25, 1871
115,191	Goulding, John, Worcester, Mass. Spinning-machine.....	May 23, 1871
115,952	Same..... Oscillating-engine.....	June 13, 1871
114,663	Goulding, Thomas B., Columbus, Ga. Pump.....	May 9, 1871
	Gould's Manufacturing Company. (See Pollard, William H., assignor.) (Two cases.) (Reissue.)	
4,963	Goutink, Edward, Detroit, Mich. Center-piece in ceilings..... (Design)	May 30, 1871
111,637	Gouverneur, Samuel L., Frederick City, Md. Device for securing corks in bottles	Feb. 7, 1871
119,756	Goux, Pierre Nicolas, France. Deodorizing excrements.....	Oct. 10, 1871
121,359	Gove, Elijah D., Holyoke, Mass. Loom-picking mechanism.....	Nov. 23, 1871
	Gove, Elijah D., and Henry A. Whitten. (See Whitten & Gove.)	
113,291	Gove, John C., Cleveland, Ohio. Railroad-car break.....	April 4, 1871
111,633	Goward, William F., Boston, Mass. Apparatus for the manufacture of confectionery.....	Feb. 7, 1871
111,925	Gowen, William, Bartlett, Tenn. Cultivator-plow.....	Feb. 21, 1871
	Grace, James J. (See Hughes, Samuel, assignor.)	
114,802	Gracie, John, assignor to Lockhart, Frew & Co., Pittsburgh, Pa. Still for hydrocarbons.....	May 16, 1871
114,803	Gracie, John, Pittsburgh, Pa. Still for oil.....	May 16, 1871
117,405	Same..... same.....	July 25, 1871
117,406	Same..... same.....	July 25, 1871
121,360	Same..... Soldering-apparatus.....	Nov. 23, 1871
	Gracie, John, and Charles Lockhart. (See Lockhart & Gracie)..... (Reissue.)	
119,346	Grader, George W., assignor to self and James H. Edmondson, Memphis, Tenn. Cotton-press.....	Sept. 26, 1871
4,320	Graebe, Charles, and Charles Lieberman, Prussia. Manufacture of alizarine. (Division A, reissue).....	April 4, 1871
4,321	Same..... Dye or coloring-matter from anthracine. (Division B, reissue).....	April 4, 1871
111,340	Graham, Charles, Kingston, Pa. Railway-car truck.....	Jan. 31, 1871
4,843	Graham, Chauncey, Elizabeth, N. J. Cottage-front..... (Design)	April 25, 1871
4,844	Same..... Front of a country-house..... (Design)	April 25, 1871
	Graham, C. B. (See Curtis, David, assignor.)	
116,435	Graham, Edmund H., assignor to self and Reuben W. Randall, Biddeford, Me. Loom-shuttle.....	June 27, 1871
	Graham, Hugh J., and James H. Pattee. (See Pattee & Graham.)	
	Graham, John C., <i>et al.</i> (See McClure, William B., assignor.)	
	Same..... same..... (Reissue.)	
117,769	Graham, John H., Brooklyn, N. Y. Saw-frame.....	Aug. 8, 1871
119,347	Graham, John W., Chillicothe, Ohio. Sediment-chamber for lamp-posts.....	Sept. 26, 1871
113,422	Graham, Lewis, Plymouth, Ill. Corn-planter.....	April 4, 1871
115,842	Graham, Simon P., London, Canada. Carriage-seat.....	June 13, 1871
121,614	Graham, William, William Snyder, and Patrick O'Brien, Pittsburgh, Pa. Sign for street-lamps.....	Dec. 5, 1871
116,436	Graham, William A., Carlisle, Pa. Rotary engine.....	June 27, 1871
110,647	Graham, William W., assignor to self and James S. Parsons, Boston, Mass. Hand-hole cap for steam-boilers.....	Jan. 3, 1871
116,437	Graichen, Frederick William, assignor to Edward Barrows and Joseph Clayton, Providence, R. I. Let-off motion of looms.....	June 27, 1871
117,768	Same..... Olneyville, R. I. Let-off attachment for looms.....	Aug. 8, 1871
120,057	Gramme, Zeno Theophile, and Eardley Louis Charles D'Ivernois, France. Magneto-electric machine.....	Oct. 17, 1871
	Granniss, James E. (See Tracy, Lewis W., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,669	Grant, Emory A., Louisville, Ky. Surgical instrument for the treatment of club-foot	May 9, 1871
4,845	Grant, George H., Richmond, Ind. End of school-desks and seats. . . (Design)	April 25, 1871
115,192	Same. . . School-desk and seat	May 23, 1871
112,239	Grant, Jackson, Milwaukee, Wis. Wooden pavement	Feb. 28, 1871
120,964	Grant, James A., assignor to Robert Charles Wilkins McCuaig, Ottawa, Canada. Brush	Nov. 14, 1871
118,604	Grant, John C., Salem, Mass. Grate and grate-bar	Aug. 29, 1871
120,266	Grant, John J., Greenfield, Mass. Die for cutting screw-threads	Oct. 24, 1871
111,198	Grant, William T., Neelyville, Ill. Compound for removal of scales from steam-boilers	Jan. 24, 1871
119,229	Grass, Ignatius, Sandusky, Ohio. Pruning-shears	Sept. 26, 1871
114,433	Grassler, William F., Muncy, Pa. Rail-joint	May 2, 1871
120,430	Same. . . Railway-car coupling	Oct. 31, 1871
117,620	Grenpner, Franz, Evansville, Indiana. Compound for dyeing	Aug. 1, 1871
117,407	Gravenstine, John, Philadelphia, Pa. Corpse-preserving case	Jan. 25, 1871
117,408	Same. . . Refrigerating-apparatus	Jan. 25, 1871
118,527	Graves, Charles Leenard, Osage, Iowa. Shank and shoe-laster for boots and shoes	Aug. 29, 1871
	Graves, Horatio. (See Vanderburgh, Van, assignor.)	
113,292	Graves, John A., Washington, D. C. Paper-feeder. (Antedated April 1, 1871)	April 4, 1871
119,841	Graves, Joseph S., assignor to self and Charles W. Harmon, Lima, N. Y. Carriage-wheel	Oct. 10, 1871
4,618	Graves, Joshua B., New York, N. Y. Caster-bottle. . . (Design)	Jan. 31, 1871
118,009	Graves, Marcellus C., Muscola, Mich., and Byron D. Graves, Waterloo, Iowa. Thill-coupling	Aug. 15, 1871
120,738	Graves, Robert C., Barnesville, Ohio. Stove-lid	Nov. 7, 1871
110,970	Gray, Elisha, Chicago, Ill. Mechanism for opening and closing telegraphic-station circuits	Jan. 17, 1871
114,938	Same. . . Telegraph-repeater	May 16, 1871
118,231	Same. . . Electro-magnetic annunciator	Aug. 22, 1871
112,803	Gray, Gardner B., and Joseph H. Remans, assignors of one-third interest to Davis T. Ruth, Mount Vernon, Ohio. Breech-loading fire arm	Mar. 21, 1871
113,651	Gray, George A., jr., Cincinnati, Ohio. Turning and boring mill	April 11, 1871
114,670	Same. . . Railroad-car axle-lathe	May 9, 1871
	Gray, James. (See Easterly, James, assignor.)	
	Gray, Jefferson J. (See Chesney, James E., assignor.)	
	Gray, Jerry C., et al. (See Fisher, Willet, assignor.)	
122,246	Gray, John, Cincinnati, Ohio. Machine for wrapping wire-cables	Dec. 26, 1871
122,247	Same. . . Machine for laying bridge-cables	Dec. 26, 1871
120,058	Gray, Joshua, New York, N. Y. Gas-lamp	Oct. 17, 1871
121,242	Gray, Joshua, assignor to Arthur W. Gray and Charles H. Hartshorn, Medford, Mass. Curtain-fixture	Nov. 28, 1871
	Gray, Oscar B., et al. (See Capron, Elisha P. H., assignor.)	
111,838	Gray, Robert C., and William B. Brittingham, La Fayette, Ind. Water-meter	Feb. 14, 1871
4,319	Gray, Robert C., and William B. Brittingham, assignors to selves and John Fordyce, La Fayette, Ind. Piston steam-valve	April 4, 1871
116,948	Gray, Solomon S., Boston, Mass. Paper-collar	July 11, 1871
117,274	Same. . . Barrel-head	July 25, 1871
	Gray, Solomon S., et al. (See Elliott, Harrison T., assignor) . . . (Reissue.)	
	Gray, Thomas, and Joseph Maxwell. (See Maxwell & Gray.)	
112,587	Gray, William H., Ashfield, Mass. Cow-tail holder	Mar. 14, 1871
113,876	Same. . . Lamp-burner	April 18, 1871
114,131	Same. . . New York, N. Y. Horse-collar	April 25, 1871
4,435	Gray, William H., assignor of one-half interest to Samuel Ross, Saint Louis, Mo. Lamp-burner	June 20, 1871
115,953	Gray, William H., Saint Louis, Mo., and Samuel Ross, Washington, D. C. Lamp-burner	June 13, 1871
121,507	Gray, William M., Brooklyn, N. Y. Door-spring	Dec. 5, 1871
121,508	Same. . . same	Dec. 5, 1871
114,287	Greacen, John, jr., New York, N. Y. Manufacture of rubber	May 2, 1871
111,449	Greacen, John, jr., and Edward L. Perry, assignors to Combination Rubber Company, New York, N. Y. Manufacture of rubber-rolls	Jan. 31, 1871
120,059	Greacen, John, jr., and Stanley, New York, N. Y. Spark-arrester	Oct. 17, 1871
	Grebner, Michael, et al. (See Bolz, Grebner & Jagel.)	
	Green, Albert, et al. (See Wentz, Green & Conner.)	
114,671	Green, Dnby, New York, N. Y. Manufacture of yeast and in the application of the same in mashing and brewing	May 9, 1871
118,800	Green, George B., England. Saw	Sept. 12, 1871
115,193	Green, Jacob, Philadelphia, Pa. Gas-burning furnace	May 23, 1871
112,334	Green, James A., Mill Dale, Va. Grain-cleaner and fertilizer-sifter	Mar. 7, 1871
117,534	Green, Joseph, assignor to self and George Stancliff, New York, N. Y. Coal hoister and conveyor	Aug. 1, 1871
118,448	Green, Luther W., Williamsport, Pa. Feeding-device for sawing-machines	Aug. 29, 1871
114,004	Green, Marion, Coldwater, Mich. Implement for slitting and joining rags for carpets	April 25, 1871
4,372	Green, Nelson W., Amherst, Mass. Method of constructing artesian wells. (Reissue)	May 9, 1871
117,409	Green, Squire J., assignor to self and Dyer Williams, Syracuse, N. Y. Pitman-connection for harvesters. (Antedated July 14, 1871)	July 25, 1871
116,303	Green, Thomas, assignor to self and Henry A. Bowdoin, Brooklyn, N. Y. Fan-attachment for sewing-machines	June 27, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,831	Green, William, Yonkers, N. Y. Railway-signal apparatus.....	July 11, 1871
4,923	Green, William B., Mansfield, N. Y. Glove.....(Design)...	May 23, 1871
117,621	Green, William M., Gallatin, Tenn. Razor-strap.....	Aug. 1, 1871
116,438	Greenaway, Alfred, and Hugh J. Needham, New Albany, Ind. Fire-place grate.	June 27, 1871
122,248	Greene, Darwin A., New York, N. Y. Steam-engine.....	Dec. 26, 1871
	Greene, George W. (See Barnkor, Kiel V., assignor).....(Reissue.)	
120,191	Greene, James, Providence, R. I. Lotion for protecting animals against flies...	Oct. 24, 1871
113,652	Greene, James Durell, New York, N. Y. Life-preserving mattress.....	April 11, 1871
121,097	Greene, William A., assignor to John H. Burtis, Brooklyn, N. Y. Stove-grate...	Nov. 21, 1871
	Greenfield, Ernest, and Philip Strauss. (See Duff, Robert, assignor.) (Two cases.)	
	Same.....(See Oehl, Charles A., assignor.)	
117,275	Greening, Benjamin, assignor to Samuel Owen Greening, Hamilton, Canada. Machine for making wire fencing.....	July 25, 1871
	Greenleaf, Halbert S. (See Rosner, George, assignor).....(Reissue.)	
118,801	Greenleaf, William A., assignor to self, John T. Dickson, and Edward Greenleaf, Indianapolis, Ind. Head-block for saw-mills.....	Sept. 12, 1871
118,449	Greenough, John James, Syracuse, N. Y. Apparatus for grooming horses.....	Aug. 29, 1871
120,192	Same.....Fastening for boxes, &c.....	Oct. 24, 1871
121,868	Greentree, Hiram, assignor to self and Thomas N. Webb, Baltimore, Md. India-rubber supporter for the arms.....	Dec. 12, 1871
120,511	Greenwalt, William H., Strikersville, Pa. Lifting-jack.....	Oct. 31, 1871
	Greenwood, Calvin S., et al. (See Aldrich & Spaulding, assignors.)	
114,288	Greenwood, Peter William, Landenburgh, Pa. Spinning-mule, &c.....	May 2, 1871
	Greer, John F., et al. (See Duff, John T., assignor).....(Design.)	
115,306	Gregg, Alexander, Watertown, Mass. Packing-box.....	May 30, 1871
	Gregg, Charles. (See Bundy, Nelson H., assignor.)	
112,335	Gregg, Erastus C., assignor to Alexander H. and Chauncey P. Gregg, Trumansburgh, N. Y. Screw-propulsion.....	Mar. 7, 1871
	Gregg, Erastus C. and Chauncey P. (See Clapp, Charles, assignor.)	
114,672	Gregg, Henry K., Baltimore, Md. Envelope.....	May 9, 1871
114,003	Gregg, Phineas, Brownsville, Mich. Cutting-apparatus for harvesters.....	April 25, 1871
119,515	Gregg, Thomas, Danville, Pa. Joint for school-desks, &c.....	Oct. 3, 1871
118,232	Gregg, William, assignor to self and Charles Newkirk, Dansville, Mich. Staking horse-power.....	Aug. 22, 1871
	Gregory, Charles W., and George E. Morris. (See Morris & Gregory.)	
121,361	Gregory, Clark B., Beverly, N. J. Base-burning stove and furnace.....	Nov. 28, 1871
114,673	Gregory, George, assignor to William H. Bradley, New Haven, Conn. Folding-step for carriages.....	May 9, 1871
4,382	Gregory, George W., New York, N. Y. Pulley-attachment for raising weights. (Reissue).....	May 16, 1871
116,832	Gregory, Seth, South Norwalk, Conn. Cooking-stove.....	July 11, 1871
113,160	Gregory, Stephen, Jonesville, Mich. Car-coupling.....	Mar. 28, 1871
117,880	Grenelle, William E., New York, N. Y. Sealing and unsealing drip-pipes in hydraulic mains.....	Aug. 8, 1871
112,445	Gresham, William H. A., Atlanta Ga. Printers' case.....	Mar. 7, 1871
	Greve, H. (See Smith, William, assignor.)	
112,588	Grey, John D., Pittsburgh, Pa. Coating sheet-iron with zinc.....	Mar. 14, 1871
4,354	Gridley, James H., assignor to H. L. Purdie, Washington, D. C. Lock-nut. (Reissue).....	April 25, 1871
4,406	Same.....Locking-washer for nuts.....(Reissue)...	May 30, 1871
111,739	Gridley, John B., assignor of one-third interest to Robert Patterson and Chauncey Rice, Louisville, Ky. Cotton-press.....	Feb. 14, 1871
116,177	Gridley, Orrin L., and Carl Engelskerchen; said Engelskerchen assignor to said Gridley, Buffalo, N. Y. Lantern.....	June 20, 1871
5,105	Gridley, Wilmer D., New Haven, Conn. Bracket.....(Design)...	July 11, 1871
120,431	Grier, George S., Milford, Del. Harvester.....	Oct. 31, 1871
122,007	Same.....Harvester-reel.....	Dec. 19, 1871
	Griffen, John, Phoenixville, Pa. Pile for rolling beams.....(Extension)...	Nov. 15, 1871
115,194	Griffes, David S., Flint, Mich. Device for turning and canting logs.....	May 23, 1871
116,178	Griffin, Crawford S., and Josiah W. Wilkins, Chelsea, Me. Dovetailing-machine.	June 20, 1871
116,949	Griffin, James Kent, Waterdown, Canada. Manufacture of composition-pipes for water, gas, &c.....	July 11, 1871
119,601	Same.....Manufacture of pipes, roofing, flooring, and other articles from disintegrated wood.....	Oct. 3, 1871
121,166	Same.....Process and apparatus for the manufacture of roofing, flooring, pipes, &c.....	Nov. 21, 1871
118,123	Griffin, Mortimer, New York, N. Y. Table-slide.....	Aug. 15, 1871
111,117	Griffin, Patrick H., Albany, N. Y. Burial-case. (Antedated Jan. 7, 1871).....	Jan. 24, 1871
121,716	Same.....Hydrant.....	Dec. 12, 1871
113,423	Griffin, Robert Arthur, Montreal, Canada. Manufacture of peat-fuel.....	April 4, 1871
114,132	Griffing, Charles S. S., assignor to self and Thomas Sharp, Salem, Ohio. Feed-water heater.....	April 25, 1871
111,118	Griffith, Collins W., assignor to self and Charles H. Mackintosh, Cincinnati, Ohio. Thill-coupling.....	Jan. 24, 1841
114,674	Griffith, Daniel A., Saint Charles, Mo. Stock-marker.....	May 9, 1871
115,843	Griffith, Daniel M., Alum Bank, Pa. Bee-hive.....	June 13, 1871
111,926	Griffith, Edmund, Wilmington, Del. Earth-closet.....	Feb. 21, 1871
114,551	Griffith, James S., Saint Louis, Mo. Surface blow-off for steam-boilers.....	May 9, 1871
116,179	Same.....Blow-off pipe for steam-boilers.....	June 20, 1871
111,639	Griffith, James S., and Charles E. Emery, New York, N. Y. Sectional steam-boiler.....	Feb. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,653	Griffith, John, and George W. Wundram, New York, N. Y. Machine for facing T-heads.....	April 11, 1871
117,622	Griffith, Nathan L., South Plymouth, Ohio. Hedge-planter.....	Aug. 1, 1871
111,839	Griffith, Richard W., Georgetown, D. C. Chimney-top.....	Feb. 14, 1871
5,322	Griffith, William H., New York, N. Y. Billiard-table..... (Design) ..	Oct. 24, 1871
114,675	Griffiths, John W., East Boston, Mass. Railroad-car.....	May 9, 1871
5,129	Griffiths, William H., Boston, Mass. Clock-front..... (Design) ..	July 18, 1871
115,307	Griggs, Andrew J., Pittsburgh, Pa. Whiffletree-hook.....	May 30, 1871
120,638	Griggs, George H., assignor to Charles F. Pike, Worcester, Mass. Spark arrester and consumer for locomotives.....	Nov. 7, 1871
	Griggs, George S., deceased, by Solomon A. Bolster, executor, Boston, Mass. Locomotive-furnace..... (Extension) ..	Dec. 3, 1871
	Same..... Locomotive-engine wheel..... (Extension) ..	Dec. 13, 1871
121,509	Griggs, Henry C., assignor to self and Louis D. Griggs, Waterbury, Conn. Suspender.....	Dec. 5, 1871
115,601	Grill, Louis A., New York, N. Y. Billiard-table.....	June 6, 1871
116,950	Same..... same.....	July 11, 1871
116,951	Same..... Fabric for beds of billiard and other tables, and for other purposes.....	July 11, 1871
	Griller Company. (See Hillhouse & Briggs.)	
116,050	Grim, David, Pittsburgh, Pa. Felloe-clip for vehicle-wheels.....	June 20, 1871
120,813	Same..... Horseshoe.....	Nov. 14, 1871
118,852	Grim, Louis, assignor of one-half interest to Alexander I. Moore, Fort Branch, Ind. Fly-trap.....	Sept. 12, 1871
118,926	Grimes, Benjamin F., Memphis, Tenn. Straw-cutter.....	Sept. 12, 1871
118,927	Same..... Fare-box for cars.....	Sept. 12, 1871
	Grimes, Franklin P., and William Altick. (See Altick & Grimes.)	
110,648	Grimes, Franklin T., Liberty, Mo. Lamp.....	Jan. 3, 1871
111,199	Same..... Baster-guide for sewing-machines.....	Jan. 24, 1871
111,531	Same..... Lamp.....	Feb. 7, 1871
119,842	Same..... same. (Antedated Oct. 6, 1871).....	Oct. 10, 1871
113,761	Grimes, William C., Decatur, Ill. Check-row attachment for corn-planters.....	April 18, 1871
111,639	Grinter, Thomas W., assignor to James L. Haven, Russellville, Ky. Wine and cider press.....	Feb. 7, 1871
113,424	Gripp, John C., Pittsburgh, Pa. Furnace for steam-boilers.....	April 4, 1871
118,010	Griscom, Chalkley, John P. and Lewis, Port Carbon, Pa., and John Fritz, Mahanoy Top, Pa. Tunneling-machine.....	Aug. 15, 1871
111,641	Griscom, John P., and John Fritz, Port Carbon, Pa. Bridge for supporting shaft-drilling machines.....	Feb. 7, 1871
119,757	Griscom, Samuel E., Mahanoy Plane, Pa. Valve or bottom for separating slate from coal.....	Oct. 10, 1871
	Same..... (See Bullock, Milan C., assignor.)	
	Same..... (See Frisbee, Gideon, assignor.)	
4,427	Griswold, Catharine, Willimantic, Conn. Skirt-supporting corset... (Reissue) ..	June 20, 1871
116,583	Same..... Corset.....	July 4, 1871
5,225	Same..... Garment-supporting hook..... (Design) ..	Aug. 22, 1871
112,446	Griswold, George W., Factoryville, Pa. Lamp-chimney.....	Mar. 7, 1871
120,872	Same..... Adjustable music-stool, stand, and work-table.....	Nov. 14, 1871
116,586	Griswold, Gonvion G., Brooklyn, N. Y. Umbrella.....	July 4, 1871
117,069	Griswold, Joshua G., Hartford, Conn. Shirt-stud.....	July 18, 1871
111,927	Griswold, Levi, Braunford, Conn. Milling-tool.....	Feb. 21, 1871
112,804	Griswold, Lyman, Denver, Colo. Combined ore-crusher and amalgamator.....	Mar. 21, 1871
	Griswold, Matthew, jr., and Samuel Selden. (See Selden & Griswold.)	
112,447	Griswold, Philander, Hudson, Mich. Grain-separator.....	Mar. 7, 1871
120,739	Griswold, William C., Newark, N. J. Adjustable crown-block for hat-bleaching machines.....	Nov. 7, 1871
	Same..... (See Hayden, George, assignor.)	
118,712	Groat, Elias, Napa, Cal. Churn.....	Sept. 5, 1871
118,713	Same..... same.....	Sept. 5, 1871
119,701	Groat, John, Peru, Ind. Sawing-machine.....	Oct. 10, 1871
113,762	Groat, Julius W., Fremont, Ohio. Washing-machine.....	April 18, 1871
119,348	Grovel, Nicholas, Newark, N. J. Trunk.....	Sept. 26, 1871
121,458	Groff, Solomon G., Vogansville, Pa. Brush and broom holder.....	Dec. 5, 1871
4,440	Grogan, Henry, Flatbush, N. Y. Lubricating compound..... (Reissue) ..	June 27, 1871
116,704	Same..... same.....	July 4, 1871
116,952	Same..... Bearing for journal-boxes.....	July 11, 1871
120,378	Groh, Michael, and J. V. Weitz, Cleveland, Ohio. Lime-kiln.....	Oct. 31, 1871
120,814	Grocock, John G., New York, N. Y. Surgical bandage.....	Nov. 14, 1871
121,510	Grocock, Samuel P., Clifton, N. J., and Walter J. Brassington, Brooklyn, N. Y., assignors to the National Wood-Manufacturing Company. Gluing table.....	Dec. 5, 1871
117,070	Groom, George, assignor to Martin M. Reynolds, Brockville, Canada. Churn.....	July 18, 1871
5,043	Groom, Patrick W., assignor to self and Jonathan R. Seltzer, Philadelphia, Pa. Shovel..... (Design) ..	June 27, 1871
116,180	Groomes, J. William, Portsmouth, Ohio. Envelope.....	June 20, 1871
115,051	Grosheing, Jean Jacques, France. Manufacture of glucose sirup and sugar.....	May 23, 1871
112,240	Grosjean, Florian, Brooklyn, N. Y. Spoon.....	Feb. 28, 1871
	Same..... (See Smith, John Harry, assignor.)	
	Same..... (See Milligan, Henry C., assignor.)	
111,200	Gross, Jacob H., Niantick, Ill. Corn-dropper.....	Jan. 24, 1871
112,241	Gross, Philip P., Palmyra, Mo. Sraw-cutter.....	Feb. 28, 1871
114,552	Gross, Samuel, Dover Township, Pa. Flavoring whisky.....	May 9, 1871
111,532	Group, Jesse R., Idaville, Pa. Machine for boring posts.....	Feb. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,724	Grove, William Henry, Philadelphia, Pa. Show-case.....(Design) ..	Mar. 21, 1871
114,434	Same.....Dry-earth closet.....	May 2, 1871
114,435	Same.....Sewing-machine stand.....	May 2, 1871
115,195	Same.....Show-case.....	May 23, 1871
4,946	Same.....same.....(Design) ..	May 30, 1871
4,978	Same.....same.....(Design) ..	June 6, 1871
120,752	Same.....same.....	Nov. 7, 1871
4,628	Grove, Winfield S., Philadelphia, Pa. Show-case.....(Design) ..	Feb. 7, 1871
119,980	Grover, Demas L., Groton, N. Y. Churn-dasher.....	Oct. 17, 1871
117,535	Grover, John William, England. Rolling-stock for railways.....	Aug. 1, 1871
118,450	Grover, William O., Boston, Mass. Sewing-machine.....	Aug. 29, 1871
120,267	Groves, John, New York, N. Y. Window-sash.....	Oct. 24, 1871
118,853	Grubb, Jonathan W. (<i>See</i> Schuckers, Jacob W., assignor.) Grube, Henry C., New York, N. Y. Covering or hide for toy-animals.....	Sept. 12, 1871
110,848	Grueter, Bernard, and Lorenzo Matt. (<i>See</i> Matt & Grueter.) Grumling, Hugh B., Grant, Pa. Hames-fastening. (Antedated Jan. 6, 1871) ..	Jan. 10, 1871
119,602	Grundy, John C., and Edward F. Reed. (<i>See</i> Reed & Grundy.) Gruit, George C., Chicago, Ill. Spring bed-bottom. (Antedated Sept. 27, 1871) ..	Oct. 3, 1871
111,928	Guard, Chauncey Holmes, Toronto, Canada. Carriage.....	Feb. 21, 1871
120,639	Gubbins, Richard R., assignor to self, Patrick J. Fitzgerald, and Lewis H. De Zouche, Troy, N. Y. Paper-folding machine.....	Nov. 7, 1871
121,615	Gubbins, Richard R., assignor to self, Thomas W. Holmes. Achille J. Rosseau, and Louis H. De Zouche, West Troy, N. Y. Paper-folding machine.....	Dec. 5, 1871
122,115	Guenther, John G., Buffalo, N. Y. Apparatus for rectifying spirits, &c.....	Dec. 26, 1871
5,360	Gueritte, Victor, assignor to W. and I. Sloane, Scotland. Carpet-pattern. (Design) ..	Nov. 7, 1871
112,704	Guernsey, William B., Jersey City, N. J. Electro-magnetic burglar-alarm.....	Mar. 14, 1871
112,705	Same.....same.....	Mar. 14, 1871
112,706	Same.....same.....	Mar. 14, 1871
4,297	Guernsey, William B., assignor to Cyrus B. Martin, Jersey City, N. J. Electro-magnetic burglar-alarm.....(Reissue) ..	Mar. 14, 1871
112,805	Guest, John H., and George E. Cock. (<i>See</i> Cock & Guest.) Guest, Samuel M., Ypsilanti, Mich. Railway-rail chair.....	Mar. 21, 1871
116,304	Guex, Louis, assignor to R. Hoe & Co., New York, N. Y. Stereotype-mold.....	June 27, 1871
112,448	Guider, John W., assignor to self and John Kieffer, Saint Joseph, Mo. Clamp for thill-couplings.....	Mar. 7, 1871
114,804	Guild, Joseph, Buffalo, N. Y. Automatic water-valve.....	May 16, 1871
115,727	Guilfoyle, William, New York, N. Y. Machine for pressing and stuffing horse-collars.....	June 6, 1871
113,161	Guinnip, Lyman, Danville, Ill. Horse-collar.....	Mar. 28, 1871
117,770	Gulayer, Louis W., <i>et al.</i> (<i>See</i> Winner, Joseph L., assignor.) Gulden, Jacob, Keyport, N. J. Soldering-apparatus.....	Aug. 8, 1871
115,308	Gulden, Jacob, assignor to Uriah H. Dudley, Keyport, N. J. Soldering-apparatus.....	May 30, 1871
118,854	Gulihier, James K., Montana, Iowa. Sad and fluting iron.....	Sept. 12, 1871
112,336	Gullberg, Carl, and Constant W. Wadsworth. (<i>See</i> Wadsworth & Gullberg.) Gundlach, Philip M., Belleville, Ill. Seeding-machine.....	Mar. 7, 1871
121,869	Gunn, George H., and Benjamin Haviland. (<i>See</i> Haviland & Gunn.) Gunn, Hiram B., and Samuel S. Sherman. (<i>See</i> Sherman & Gunn.) Gunn, Schuyler E., assignor to Frank Sturges & Co., Chicago, Ill. Tin can.....	Dec. 12, 1871
119,603	Gunning, Thomas B., New York, N. Y. Composition-box.....	Oct. 3, 1871
112,449	Gunther, Gottlob, New York, N. Y. Bird-cage.....	Mar. 7, 1871
121,268	Gunther, Hermann A., New York, N. Y. Pavement.....	Oct. 24, 1871
112,806	Gurney, Heman S., and Horace Merrill, Memphis, Mich. Churn.....	Mar. 21, 1871
119,702	Gustafson, Gustaf, assignor to self, John Phillips, and Henry Leibenstein, Chicago, Ill. Machine for bending wood.....	Oct. 10, 1871
118,714	Gustin, Samuel. (<i>See</i> Snyder, Philip A., assignor.) Gutierrez, Benigno, Santa Barbara, Cal. Medical compound.....	Sept. 5, 1871
118,605	Guttridge, David C., assignor of two-thirds interest to Charles Ballinger and Robert Smiley, Pittsburgh, Pa. Corn-sheller.....	Aug. 29, 1871
120,379	Gutzkow, Hermann, and Julius Bronner. (<i>See</i> Bronner & Gutzkow) ..(Reissue.) Guy, Elias E., and Leander Spaulding. (<i>See</i> Spaulding & Guy.) Guyot, Minor, <i>et al.</i> (<i>See</i> Shortt, Edward G., assignor).....(Two cases.)	Oct. 31, 1871
118,528	Guzman, Peter, France. Motor.....	Aug. 29, 1871
119,758	Gwyer, C. H. (<i>See</i> Smith & Winston, assignors.) Gyles, James F., Chicago, Ill. Wood-pavement.....	Oct. 10, 1871
112,450	Gyss, Florent, New York, N. Y. Door-lock.....	Mar. 7, 1871
118,715	Haas, Leonard J. (<i>See</i> Eames, William T., assignor.) Haas, William, New York, N. Y. Stop-cock and valve.....	Sept. 5, 1871
121,167	Same.....Stop-valve.....	Nov. 21, 1871
111,929	Habecker, Joseph B., Newport, Pa. Clothes line holder.....	Feb. 21, 1871
117,276	Hacker, Francis, and Frederick Richardson. (<i>See</i> Richardson & Hacker.) (Two cases.) Hackett, Joseph, Louisville, Ky. Fire-place.....	July 25, 1871
121,616	Same.....same.....	Dec. 5, 1871
112,140	Same.....Burial-case.....	Feb. 28, 1871
	Hadwin, William, assignor to self and Isaac S. Wilson, Rochester, N. Y. Baling short-cut hay or straw.....	
	Haerther, Augustus, and Charles F. Smith. (<i>See</i> Smith & Haerther.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,642	Hafenegger, Joseph, San Francisco, Cal. Explosive compound	Feb. 7, 1871
	Hagelin, Adolphus. (<i>See Stanton, Joseph, assignor.</i>)	
122,008	Hagerty, Thomas, Richmond, Va. Pinking-machine	Dec. 19, 1871
	Haggerty, B. B. (<i>See Read, Horatio, assignor.</i>)	
	Haggerty, James W., <i>et al.</i> (<i>See Moreau, Eugene, assignor.</i>)	
112,242	Hahl, Augustus, assignor to the Electric Clock and Bell Company, Washington, D. C. Electro-magnetic signal-apparatus	Feb. 23, 1871
118,928	Hahn, Francis E., Philadelphia, Pa. Sewing-machine	Sept. 12, 1871
122,249	Haight, Henry J., New York, N. Y. Incubator	Dec. 26, 1871
118,529	Haight, Levi A., Cairo, N. Y. Churn-power	Aug. 29, 1871
113,763	Haines, Charles L., North Newburgh, Me. Cheese-press	April 18, 1871
4,361	Haines, John Peter, New York, N. Y. Oil-cup	May 2, 1871
116,953	Haines, John W., Cambridge, Mass. Reflector for lamps	July 11, 1871
113,513	Hainsworth, Frederick, Chicago, Ill. Gasoline-attachment for cooking-stoves	April 11, 1871
4,347	Hainsworth, William, assignor of one-half interest to Sears M. Loveridge, Allegheny City, Pa. Mold	April 18, 1871
111,055	Hayman, Elias, assignor to Blount, Hayman & Bro., Columbus, Ga. Plow	Jan. 17, 1871
	Haic & Manley. (<i>See Park, John, assignor.</i>)	
	Hale, A. R. (<i>See Barnum, Lafayette, assignor.</i>)	
119,843	Hale, Benjamin E., New York, N. Y. Manufacture of wrapping-paper	Oct. 10, 1871
114,805	Hale, Elias J., Foxcroft, Me. Lamp-burner	May 16, 1871
	Hale, Goodman & Co. (<i>See Curtis, Harrison W., assignor.</i>)	
120,640	Hale, Joseph, Somerville, Mass. Thill-coupling	Nov. 7, 1871
122,030	Hale, Luke, Hollis, N. H. Hay-tedder	Feb. 21, 1871
120,512	Same. Clothes-wringer	Oct. 31, 1871
119,759	Hale, Oscar F., Irvington, Iowa. Ditching-machine	Oct. 10, 1871
120,269	Haley, Andrew M., Sioux City, Iowa. Valve for steamboat engines	Oct. 24, 1871
122,009	Hall, Abijah W., Northfield, Vt. Combined friction and ratchet clutch	Dec. 19, 1871
115,463	Hall, Albert H., and Theophilus Locher, Sacramento, Cal. Metallic packing for stuffing-boxes	May 30, 1871
115,602	Hall, Alexander W., New York, N. Y. Anti-friction bearing for journals	June 6, 1871
119,981	Hall, Charles, New York, N. Y. Differential pulley-block	Oct. 17, 1871
4,629	Hall, Charles S., New York, N. Y. Show-card	Feb. 7, 1871
116,305	Same. Rochester, N. Y. Adjustable shield for shaft-coupling	June 27, 1871
117,410	Same. Concave for thrashing-machine	July 25, 1871
120,582	Same. Grain-separator	Nov. 7, 1871
121,939	Same. Grain thrasher and separator	Dec. 19, 1871
4,602	Hall, Daniel A., and David Garrison, assignors to Swan & Clark, Philadelphia, Pa. Box for the top of bureaus	Jan. 24, 1871
4,603	Same. same	Jan. 24, 1871
113,046	Hall, Daniel A., and David Garrison, Philadelphia, Pa. Construction of pier-glass frames and cornices	Mar. 28, 1871
116,833	Hall, Don C., Hannibal, Mo. Carpet-sweeper. (Antedated July 8, 1871)	July 11, 1871
113,877	Hall, Edward K., Louisville, Ky. Burglar-proof safe	April 18, 1871
115,728	Same. same	June 6, 1871
116,954	Same. same	July 11, 1871
116,705	Hall, Edwin, Oxford, N. Y. Carriage-spring	July 4, 1871
	Hall, Edwin R. (<i>See Henderson, Constantine, assignor.</i>)	
114,806	Hall, Eli R., and Daniel A. Keyes, Norfolk, Conn. Stove-pipe damper	May 16, 1871
	Hall, Elihu, & Co. (<i>See Warner, Almon, assignor.</i>) (Reissue.)	
	Hall, Elton & Co. (<i>See Culver, John M., assignor.</i>) (Design.)	
	Hall, F. F., <i>et al.</i> (<i>See Morrison, Duncan, assignor.</i>)	
116,587	Hall, Francis L., Oneida, N. Y. Brick-machine	July 4, 1871
121,243	Hall, Frank Elmer, Bridgewater, Mass. Stall-floor	Nov. 23, 1871
	Hall, George, <i>et al.</i> (<i>See Chinn, Hall & Fitch.</i>)	
118,929	Hall, George B., Rising Sun, Ind. Shoe	Sept. 12, 1871
119,349	Hall, George B., and Joseph Shaffer, Kansas City, Mo. Railroad-car ventilator	Sept. 26, 1871
	Hall, George F., <i>et al.</i> (<i>See Morrill, Coffin & Hall.</i>)	
121,511	Hall, George L., assignor to Globe Nail Company, Boston, Mass. Machine for manufacturing horseshoe-nails	Dec. 5, 1871
119,350	Hall, Henry M., New York, N. Y. Device for securing hemmers, &c., to sewing-machines	Sept. 26, 1871
120,513	Same. Binder for sewing-machines	Oct. 31, 1871
117,771	Hall, Isaac, assignor to self and George B. Walter, New York, N. Y. Telegraph-apparatus	Aug. 8, 1871
118,124	Hall, James, Ligonja, Ind. Windmill	Aug. 15, 1871
	Hall, James F., <i>et al.</i> (<i>See Harwood, William P., assignor.</i>)	
5,307	Hall, Joel, assignor to Hall, Elton & Co., Wallingford, Conn. Sugar-tongs	Oct. 10, 1871
118,011	Hall, John, Watertown, Mass. Race-course toy-bank	Aug. 15, 1871
120,270	Hall, John C., Cincinnati, Ohio. Combined lounge and bedstead	Oct. 24, 1871
112,031	Hall, John C., assignor to self and Allen C. Richards, Cincinnati, Ohio. Lounge and bed	Feb. 21, 1871
	Hall, John S., Pittsburgh, Pa. Plow	May 17, 1871
115,844	Hah, Joseph B., Lebanon, N. H. Millstone-elevator	June 13, 1871
	Hall, Joshua, <i>et al.</i> (<i>See Phillips, George B., assignor.</i>)	
	Hall, Robert E. H. (<i>See Nichols, William H., assignor.</i>)	
	Hall, Samuel H. (<i>See Osgood, James H., assignor.</i>)	
5,413	Hall, Thomas, Jersey City, N. J. Show-card for hair-nets. (Design) ..	Dec. 12, 1871
113,425	Hall, Thomas S., New Haven, Conn. Railway-bridge signal-apparatus ..	April 4, 1871
4,493	Same. West Meriden, Conn. Double-circuit instrument for railroad-signals and other purposes	Aug. 1, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,606	Hall, Thomas S., West Meriden, Conn. Electro-magnetic signal-apparatus for railroads	Aug. 29, 1871
119,137	Same..... Electro-magnetic signal for switches and draw-bridges	Sept. 19, 1871
121,870	Same..... Electro-magnetic signal-house	Dec. 12, 1871
114,676	Hall, Uriah S., assignor of one-half interest to Jesse Owen, Chemung, N. Y. Method of attaching springs to carriages	May 9, 1871
111,740	Hall, William H. (<i>See</i> Sheldon, Nathaniel P., assignor.) Hall, William H., assignor to self and Joseph W. Haskins, Boston, Mass. Inter-fearing-pad for horses	Feb. 14, 1871
118,930	Hall, William N., Springfield, Tex. Combination-lock	Sept. 12, 1871
120,935	Hall, William P., Piqua, Ohio. Kiln for burning brick, lime, &c.	Nov. 14, 1871
122,010	Same..... Steam-boiler casing and furnace	Dec. 19, 1871
119,351	Hall, Willis De Lancey, Memphis, Tenn. Automatic fan	Sept. 26, 1871
120,966	Halladay, William H., assignor to self and Daniel A. Kimball, Chicago, Ill. Guide for sewing-machines	Nov. 14, 1871
117,411	Halleck, Samuel P., Oriskany, N. Y. Cheese-vat fastener	July 25, 1871
113,764	Hallefats, William T., New York, N. Y. Caloric-engine	April 18, 1871
121,617	Hallett, Albert S. and Hervey H., East Abington, Mass. Car-coupling	Dec. 5, 1871
113,514	Hallett, Enoch, Hillsdale, Mich. Brick-machine	April 11, 1871
117,412	Halley, Thomas F., and John F. Livingston, Washington, D. C. Lamp-burner	July 25, 1871
115,729	Halliday, Edwin W., Columbus, Ky. Wharf-boat	June 6, 1871
117,772	Halliday, John, New Orleans, La. Apparatus for removing sand-bars from rivers	Aug. 8, 1871
110,971	Hallidie, Andrew Smith, San Francisco, Cal. Endless-wire rope-way	Jan. 17, 1871
115,309	Same..... same	May 30, 1871
115,310	Same..... same	May 30, 1871
121,776	Same..... Endless rope-way	Dec. 12, 1871
121,284	Hallock, Charles C., assignor of one-half interest to Asa Hoyt, Brooklyn, N. Y. Coating concrete and cement floors, pavements, &c.	Nov. 28, 1871
120,062	Hallock, W. H. Harrison, Mattituck, N. Y. Animal-gag	Oct. 17, 1871
117,277	Hallowell, Albert, Edmund Elliott, and Charles A. Blodgett; said Elliott assignor to said Blodgett, Lowell, Mass. Camp-stool	July 25, 1871
116,706	Halsey, A. J., <i>et al.</i> (<i>See</i> Baxter, William, assignor.) Halsey, Herrick R., La Fayette, Ill. Sash-holder	July 4, 1871
118,125	Same..... Household-utensil	Aug. 15, 1871
120,022	Halsey, William Hudson, Philadelphia, Pa. Oil-cloth printing-machinery	Feb. 21, 1871
115,311	Halsey, William H., assignor to self and Theodore F. Taylor, Philadelphia, Pa. Temporary shoe for horses. (Antedated May 19, 1871)	May 30, 1871
115,603	Halsted, Etniel P., assignor to R. Ball & Co., Worcester, Mass. Tenoning-machine	June 6, 1871
118,731	Same..... Cutter-head for wood-working machine	Sept. 12, 1871
119,138	Halsted, Melvin A., San Francisco, Cal. Traction-engine	Sept. 19, 1871
4,413	Halvorson, Halvor, assignor to Rufus S. Merrill, Nashua, N. H. Lamp. (Reissue)	June 6, 1871
4,660	Halvorson, Halvor, assignor through mesne assignments to Rufus S., William B., and Joshua Merrill, Nashua, N. H. Lamp. (Reissue)	Dec. 5, 1871
114,436	Ham, John C., New York, N. Y. Support for the sashes of carriage-doors and windows	May 2, 1871
	Ham, Robert, and Robert Scorer. (<i>See</i> Scorer & Ham)..... (Three cases.) Haman, George, <i>et al.</i> (<i>See</i> Lippold, Henry, assignor.)	
115,604	Hamill, Hugh, New York, N. Y. Pressing, ironing, and smoothing machine	June 6, 1871
115,312	Hamilton, Benjamin R., South Deerfield, and Samuel Swan, Conway, Mass. Machine for creasing leather	May 30, 1871
117,169	Hamilton, Emery M., New York, N. Y. Adding-machine	July 18, 1871
110,849	Hamilton, Finlay F., Green Bay, Wis. Hay-press	Jan. 10, 1871
121,244	Same..... same. (Antedated Nov. 9, 1871)	Nov. 28, 1871
	Hamilton, Franklin D., and George K. Proctor. (<i>See</i> Proctor & Hamilton.) Hamilton, Fred. C., assignor through mesne assignments to Franklin W. Brooks, New York, N. Y. Seal-bolt	Oct. 17, 1871
120,061	Same..... same	Oct. 17, 1871
121,777	Hamilton, Henry W., Brandon, Vt. Hay-loader	Dec. 12, 1871
116,955	Hamilton, Ira S., Hamilton, Ohio. Ratchet-drill	July 11, 1871
120,641	Same..... Pipe-wrench	Nov. 7, 1871
121,512	Hamilton, Ira S., assignor to self and Owens, Lane, Dyer & Co., Hamilton, Ohio. Swaying-tool for boiler-tubes	Dec. 5, 1871
121,513	Same..... Tool for expanding and cutting off boiler-tubes. (Antedated Nov. 25, 1871)	Dec. 5, 1871
121,514	Same..... Flue-expander	Dec. 5, 1871
	Hamilton, James A. (<i>See</i> Rodgers, Amos Charles, assignor.) Hamilton, John L., Saint Joseph, Mo. Horse-detaching apparatus	May 9, 1871
111,341	Hamilton, Joseph F., Alliance, Ohio. Valve for steam-pumps	Jan. 31, 1871
116,707	Hamilton, Robert W., Hartford, Conn. Exhaust-valve	July 4, 1871
117,881	Hamilton, Robert W., assignor to William L. Williams, New York, N. Y. Lock-nut	Aug. 8, 1871
111,342	Hamilton, Thomas Foster, Geneseo, Ill. Door-hanger and rail	Jan. 31, 1871
118,362	Same..... Cultivator and shovel-plow	Aug. 22, 1871
115,954	Hamilton, Thomas F., assignor to self and Morris P. Bray, New Haven, Conn. Corset	June 13, 1871
114,289	Hamilton, Wesley W., Flushing Township, N. Y. Slate-frame	May 2, 1871
114,133	Hamilton, William B., assignor to the New Orleans Sanitary and Fertilizing Company, New Orleans, La. Fertilizing-compound	April 25, 1871
115,313	Hamilton, William Barkerville, assignor to William P. Hamilton, New Orleans, La. Turpentine-box	May 30, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,530	Hamilton, William T., Lutherburgh, Pa. Wagon-brake	Aug. 29, 1871
117,623	Hamler, Cornelius, assignor to Andrew Shiner, Newton, N. J. Seythe-fastening. (Antedated July 21, 1871)	Aug. 1, 1871
120,967	Hamlin, Caroline L., New York, N. Y. Corset	Nov. 14, 1871
	Hamlin, Charles A., and Esek Bussey. (See Bussey & Hamlin.)	
119,844	Hamlin, Edgar C., Pavilion, N. Y. Metallic hook	Oct. 10, 1871
116,834	Hamlin, Emmons, assignor to Mason & Hamlin Organ Company, Winchester, Mass. Keyed musical instrument	July 11, 1871
121,778	Same.....Key-board musical instrument	Dec. 12, 1871
111,930	Hamlin, George B., Willimantic, Conn. Making cider	Feb. 21, 1871
	Hammon, Noah W., and Henry B. Osborn. (See Osborn & Hammon.)	
112,589	Hammond, Henry, assignor to Lewis Hammond, Hartford, Conn. Breech-load- ing fire-arm	Mar. 14, 1871
119,352	Hammond, Horace J., Newburgh, Ohio. Tea and coffee pot	Sept. 26, 1871
113,292	Hammond, Job E., New Bedford, Mass. Fish-trap. (Antedated March 24, 1871) ..	April 4, 1871
112,141	Hammond, Samuel S., and John S. Paden, North East, Pa. Grain-separator and fanning-mill	Feb. 28, 1871
119,845	Hampton, James W., Mount Pleasant, Iowa. Washing-machine	Oct. 10, 1871
120,271	Same.....Bed-bottom frame	Oct. 24, 1871
120,968	Same.....Clothes-wringer	Nov. 14, 1871
	Same.....(See Faulkner, Admiral, assignor.)	
114,807	Hancock, Edward Clinton, New Orleans, La. Projectile	May 16, 1871
112,033	Hancock, Henry J., New York, N. Y. Holder for needles in sewing-machines ..	Feb. 21, 1871
112,590	Hancock, John, jr., assignor through mesne assignments to self and Benjamin Morse, Providence, R. I. Window-screen	Mar. 14, 1871
116,439	Hancock, John C., Charlestown, Mass., and Josiah C. and Edward P. Richardson, Somerville, Mass. Boot and shoe tap	June 27, 1871
117,773	Hancock, John C., Charlestown, Mass., and Edward P. Richardson, Somerville, Mass. Fire-escape	Aug. 8, 1871
121,515	Hancock, John T., West Roxbury, Mass. Ejector for forcing liquids	Dec. 5, 1871
114,554	Hancock, Leonard, assignor to James Newman, Alton, Ill. Buck-saw frame ..	May 9, 1871
117,624	Hancock, William, Gosport, Ind. Roofing-bracket	Aug. 1, 1871
113,293	Hand, William, Plainfield, N. J. Dumping-cart	April 4, 1871
	Handren & Ripley. (See Lawson, Benjamin S., assignor.)	
	Handy, Thomas. (See Phillips, Moreau, assignor.)	
120,432	Hardyside, James Baird, Great Britain. Railway-car wheel	Oct. 31, 1871
110,972	Hanford, Melancthon, Lexington, Mass. Machine for mixing and bleaching sugars Hanford, Thomas, and Richard Cook. (See Cook & Hanford.)	Jan. 17, 1871
117,413	Hanger, Jacob A. and George C., Churchville, Va. Device for climbing tele- graph-poles, &c.	July 25, 1871
111,741	Hanger, James Edward, Staunton, Va. Artificial leg	Feb. 14, 1871
118,238	Haukin, William, Hawley, Pa. Buck-saw frame	Aug. 22, 1871
120,157	Hankin, William, assignor to self, William H. Hankin, and H. W. Peace, Wil- liamsburgh, N. Y. Buck-saw frame	Oct. 24, 1871
4,583	Hanley, James, New York, N. Y. Mechanical movement for sewing and other machinery	Oct. 10, 1871
	Same.....Mechanical movement for sewing and other machinery. (Ex- tension)	Nov. 29, 1871
120,380	Hanna, Daniel W. and Edward S., Pittsburgh, Pa. Method of utilizing the waste chloride of zinc in treating paper	Oct. 31, 1871
	Hanna, Edmund S., et al. (See Taylor, Thomas, assignor.)	
119,604	Hanna, Edmund S., assignor to self and Columbus West, Pittsburgh, Pa. Paper- washer	Oct. 3, 1871
4,245	Hanna, Hugh, Pittsburgh, Pa. Thrashing-machine	Jan. 31, 1871
121,362	Hanna, John A., Bel Air, Md. Carriage-seat joint	Nov. 28, 1871
121,098	Hanna, John C., assignor to C. W. Harvey, Rossville, Iowa. Sash-holder	Nov. 21, 1871
119,333	Hanna, John F., Moline, Ill. Grading-machine	Sept. 26, 1871
	Hanna, Philip, and George Miller. (See Miller & Hanna.)	
121,168	Hannan, John W., Elyria, Ohio. Milk-can handle	Nov. 21, 1871
115,730	Hannen, Henry, assignor to self, Thomas Woods, and Benjamin F. Pine, Phila- delphia, Pa. Machine for making sheet-lead	June 6, 1871
112,337	Hannum, Joseph L., and Samuel H. Stebbins, Berea, Ohio. Compound for kind- ling fire	Mar. 7, 1871
	Hanscom, James S. (See Eaton, Daniel E., assignor.)	
5,026	Hanscom, William W., San Francisco, Cal. Steam-pump	June 20, 1871
119,139	Hansen, Christian O., Ferguson, Mo. Sawing-machine	Sept. 19, 1871
	Hansen, Peter, and Hans H. Frank. (See Frank & Hansen.)	
	Hanson, Frederick C., and Joseph L. Ross. (See Ross & Hanson.)	
116,051	Hanson, Thomas, New York, N. Y. Direct-acting engine	June 20, 1871
117,071	Same.....Packing steam-pistons	July 18, 1871
117,536	Hanvey, Alexander, Steubenville, Ohio. Barrel-head	Aug. 1, 1871
114,134	Hanvey, Thomas, Rochester, N. Y. Veneer-cutting machine	April 25, 1871
117,625	Hanvey, Thomas, assignor to the Hanvey Barrel Manufacturing Company, Elmer, N. Y. Trunk	Aug. 1, 1871
	Hapgood & Co. (See Tinkham, Benjamin, assignor.) (Two cases.) (Reissue.) ..	
	Same.....(See Lane, John, assignor.) (Two cases.)	
118,932	Hapgood, Joab, Shrewsbury, Mass. Plow	Sept. 12, 1871
113,426	Happel, Henry, New York, N. Y. Composition for coating photograph-pictures ..	April 4, 1871
113,047	Harbach, Horatio N. and Theodore J., Philadelphia, Pa. Confectionery or cocoa-nut candy	Mar. 28, 1871
	Harbaugh, Isaac, and William A. Wallet. (See Wallet & Harbaugh.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,654	Harbison, John Hamilton, Philadelphia, Pa. Toy	April 11, 1871
	Harbottle, James V., <i>et al.</i> (See Phillips, George B., assignor.)	
	Harbster, Brothers & Co. (See Brown, Thomas W., assignor.) (Reissue.)	
	Harcourt, A. P., <i>et al.</i> (See Snyder, Samuel, assignor.)	
	Hard, Chester, and George Fyfe. (See Fyfe & Hard.)	
121,169	Hard, Hanson, Akron, Ohio. Spring bed-bottom	Nov. 21, 1871
4,792	Hardeastle, Thomas, England. Printed fabric. (Design) ..	April 11, 1871
111,742	Hardick, Charles B., Brooklyn, N. Y. Air-pump	Feb. 14, 1871
120,033	Harding, George R., Manchester, Va. Animal-trap	Oct. 17, 1871
114,808	Harding, Josiah, Ainsworth, Iowa. Wagon-standard	May 16, 1871
117,414	Harding, Orrin H. and Daniel G. Williams, Quincy, Mich. Clothes-drier	July 25, 1871
111,056	Harding, Thomas, La Fayette, Ind. Plow	Jan. 17, 1871
111,057	Same..... Emery-wheel	Jan. 17, 1871
118,363	Harding, Willard M., Chelsea, Mass. Propulsion of vessels	Aug. 22, 1871
	Harding, Willard M. (See Burke, Patrick, assignor.)	
113,655	Harding, William Henry, and Henry Frederic Morse, Portland, Me. Dump- ing-car	April 11, 1871
	Hardwick, Charles F., <i>et al.</i> (See Hunt, George W., assignor.)	
119,354	Hardwick, George W., Wyandotte, Ind. Mole-trap	Sept. 26, 1871
119,703	Hardy, Charles C., Rutland, N. Y. Ironing-table. (Antedated Sept. 25, 1871) ..	Oct. 10, 1871
113,515	Hardy, Clinton R., Lexington, Ind. Fly-trap	April 11, 1871
111,533	Hardy, Emery E. and Napoleon Dubrud, Joliet, Ill. Leather punching and cutting machine	Feb. 7, 1871
	Hardy, John, and Andrew Collins. (See Collins & Hardy.)	
	Hardy, John J. (See Fraser, John, assignor.)	
113,048	Hardy, Pierre J., New York, N. Y. Turning-lathe. (Antedated March 24, 1871) ..	Mar. 23, 1871
113,294	Hardy, Uriah W., Abingdon, Ill. Gate	April 4, 1871
113,162	Hargrave, Thomas C., Boston, Mass. Water-meter	Mar. 23, 1871
113,427	Same..... Rolled metallic strip for washers	April 4, 1871
121,099	Same..... Post-office letter-stamping apparatus	Nov. 21, 1871
112,591	Harlan, Aaron S., Bloomington, Ill. Rotary steam-engine	Mar. 14, 1871
	Harlan, Philip C., and Joseph R. Anderson. (See Anderson & Harlan.)	
112,451	Harley, Joseph L., Baltimore, Md., and Xaver Fendrich, Georgetown, D. C. Valve for steam-engines	Mar. 7, 1871
117,774	Harlow, Charles F., Boston, Mass. Clipping-shears	Aug. 8, 1871
111,119	Harlow, Edwin W., Hastings, Mich. Back-pad press	Jan. 24, 1871
115,605	Harly, Jacob F., Cleveland, Ohio. Milk-cooler	June 6, 1871
119,355	Same..... Ripton Station, Ohio. Street-lantern	Sept. 26, 1871
	Harman, Charles W. (See Graves, Joseph S., assignor.)	
116,588	Harman, William H., Westminster, Md. Harvester	July 4, 1871
5,138	Harmon, Emma F., Conneaut, Ohio. Garment-measure. (Design) ..	July 25, 1871
112,243	Harned, Hiram S. and Frank S. Elliott, Boonsborough, Iowa. Bee-hive	Feb. 28, 1871
112,338	Harnish, Benjamin, Lancaster, Pa., and David H. Pequea, Pa. Lawn-mower ..	Mar. 7, 1871
118,234	Same..... Machine for cutting and grinding corn-fodder, &c.	Aug. 22, 1871
118,235	Same..... Vegetable-cutter	Aug. 22, 1871
118,716	Harnish, Edward P., Felton, Del. Seed and fertilizer dropper	Sept. 5, 1871
119,269	Harper, James, New Haven, Conn. Lubricator for steam-engines	Sept. 26, 1871
121,779	Same..... same	Dec. 12, 1871
115,845	Harper, James B., Saint John, Mo. Car-coupling	June 13, 1871
112,452	Harper, John H., Pittsburgh, Pa. Metallic hub	Mar. 14, 1871
120,815	Harper, Thomas J., Atlanta, Ga. Sewing-machine	Nov. 14, 1871
119,140	Harrell, Hiram P., Roxobel, N. C. Cotton-gin attachment	Sept. 19, 1871
	Harrell, James Lafayette, and Ezekiel Pickard Jones. (See Jones & Harrell.)	
112,592	Harrell, William D. Moore's Hill, Ind. Potato-digger	Mar. 14, 1871
114,939	Harrigan, Dennis, assignor to self and Joel Gay, North Somerville, Mass. Pipe- cutter	May 16, 1871
117,278	Harrigan, John, Fort Wadsworth, N. Y. Corkscrew, cork-puller, and can- opener combined	July 25, 1871
	Harrington, Benjamin F., and Henry H., <i>et al.</i> (See Holdredge, Harrington & Harrington.)	
114,809	Harrington, Dennis, Boston, Mass. Machine for scouring, polishing, and gloss- ing leather	May 16, 1871
113,578	Harrington, Francis S., Boston, Mass. Railway-car truck	April 18, 1871
	Harrington, George. (See Edison, Thomas A., assignor.)	
111,534	Harrington, Gilbert H., Worcester, Mass. Cartridge-shell ejector for revolving fire-arms	Feb. 7, 1871
119,704	Harrington, Jackson, assignor to self and Ralph Wheeler, New London, Conn. Raisin-seeder. (Antedated Sept. 30, 1871)	Oct. 10, 1871
115,196	Harrington, John, Bridgeport, Conn. Dies for forging axles	May 23, 1871
113,765	Harrington, John R., Brooklyn, N. Y. Carpet lining	April 18, 1871
110,850	Harrington, Thomas, Pittsburgh, Pa. Steam-pump	Jan. 10, 1871
118,607	Harriott, Edgar, Plainfield, N. J. Propulsion of vessels	Aug. 29, 1871
	Harris, A. H. (See North, John, assignor.)	
115,846	Harris, Andrew R., Saint Louis, Mo. Device for indicating and registering the motion of marine-engines	June 13, 1871
115,847	Same..... Electro-magnetic indicator for steam-engines	June 13, 1871
113,163	Harris, Calvin A. S., Saint Louis, Mo. Propeller for vessels	Mar. 25, 1871
112,339	Harris, Charles B., New York, N. Y. Composition for pavements	Mar. 7, 1871
114,437	Harris, Charles J., Bloomington, Ill. Return-flue boiler-furnace	May 2, 1871
119,605	Same..... Furnace for steam-boilers	Oct. 3, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,049	Harris, D. R., New South Berlin, N. Y. Coach-painters' easel. (Antedated March 16, 1871)	Mar. 28, 1871
118,451	Harris, Edward A., Chicago, Ill. Stand for brooms	Aug. 29, 1871
	Harris, General J., and Justin D. Turner. (See Turner & Harris.)	
110,649	Harris, George Alfred, Buchanan, Mich. Clothes-pin	Jan. 3, 1871
112,593	Harris, George W., Elizabeth, N. J. Gas-retort	Mar. 14, 1871
112,142	Harris, Hart, Tidioute, Pa. Extricator for oil-wells	Feb. 28, 1871
110,650	Harris, Henry A., Centre, Tex. Saw-set. (Antedated Dec. 23, 1870)	Jan. 3, 1871
113,050	Harris, James, San Francisco, Cal. Wheel for vehicles	Mar. 28, 1871
115,052	Same.....Janesville, Wis. Harvester-rake	May 23, 1871
115,606	Harris, John, New York, N. Y. Milk-cart	June 6, 1871
115,848	Same.....Grand Lodge, Mich. Sewing-machine	June 13, 1871
	Harris, John C., and Benjamin R. Smith. (See Smith & Harris.)	
	Harris, J. Campbell, <i>et al.</i> (See Myers & Eunson, assignors).....(Disclaimer.)	
111,201	Harris, John K., Springfield, Ohio. Gate	Jan. 24, 1871
112,244	Harris, Max, New York, N. Y. Ladies' supporting-brace	Feb. 28, 1871
120,583	Same.....Brace or suspender. (Antedated Oct. 24, 1871)	Nov. 7, 1871
120,584	Same.....Combined suspender and safety-pocket	Nov. 7, 1871
115,197	Harris, Milo, Jamestown, N. Y. Hemmer for sewing-machines	May 23, 1871
120,969	Same.....Hemming and binding attachment for sewing-machines	Nov. 14, 1871
121,516	Same.....Hemmer and binder for sewing-machines	Dec. 5, 1871
117,279	Harris, Newton J., Meredocia, Ill. Cultivator	June 25, 1871
116,181	Harris, Samuel W., assignor to self and Josephus H. Clark, Jamestown, N. Y. Saw-mill	June 20, 1871
120,514	Same.....Saw-mill head-block	Oct. 31, 1871
4,636	Harris, Theodore E., Green Bay, Wis. Machine for shearing and punching shingle-straps	Nov. 14, 1871
121,940	Harris, Thomas, Côté Saint Paul, Canada. Needle-sharpener	Dec. 19, 1871
120,193	Harris, William J., assignor of half interest to Samuel Stewart, Elizabeth, N. J. Machine for driving wedges in pavements	Oct. 24, 1871
118,531	Harrison, Edmund, Mountain View, Cal. Apparatus for unloading hay, &c.	Aug. 29, 1871
119,356	Harrison, George W., assignor to self and Sinon Forster, Lansing, Mich. Harvester-pitman	Sept. 26, 1871
114,810	Harrison, James, Castalia, N. C. Compound for the cure of cancer	May 16, 1871
114,811	Same.....New York, N. Y. Sign	May 16, 1871
120,272	Same.....Apparatus for releasing horses	Oct. 24, 1871
111,202	Harrison, James M., Spartanburgh, Ind. Hand corn-planter	Jan. 24, 1871
110,760	Harrison, Joseph, Philadelphia, Pa. Precautionary attachment for bottles containing poison	Jan. 3, 1871
	Harrison, Joseph G. (See Jonson, Julius, assignor.)	
119,029	Harrison, Marshall, assignor to self and Jefferson Mize, Laclede, Mo. Cutting-apparatus for harvester	Sept. 19, 1871
118,236	Harrison, Orrel M., Glasgow, Mo. Harvester-dropper	Aug. 22, 1871
111,840	Harrison, Robert J., Raleigh, N. C. Cotton-press	Feb. 14, 1871
114,555	Harrison, Theophilus, and William C. Buchanan, Belleville, Ill. Horse-power	May 9, 1871
117,280	Harrison, Jacob G., Sag Harbor, N. Y. Method of converting rectilinear into rotary motion	July 25, 1871
	Harroun, J. E. (See Danks, Melancthon W., assignor.)	
	Harsha, James. (See Darby, George W., assignor.)	
	Harshberger, Adam. (See Rose & Mason, assignors.)	
	Same.....(See Wagner, Alfred H., assignor.)	
110,973	Hart, George L., New Britain, Conn. Animal-trap	Jan. 17, 1871
112,807	Same.....Mouse and animal trap	Mar. 21, 1871
116,052	Same.....Trace-lock	June 20, 1871
113,051	Hart, Hubert C., Unionville, Conn. Mouse and animal trap	Mar. 28, 1871
	Hart Manufacturing Company. (See Bement, Charles S., assignor.)	
	Same.....(See Ottner, Joseph, assignor).....(Design.)	
	Same.....(See Bradbury, John, assignor).....(Four cases.)	
111,643	Hart, Oliver P., Logtown, Cal. Cam for quartz-mills	Feb. 7, 1871
111,841	Hart, Sanford H. and Hubert C., Unionville, Conn. Animal-trap	Feb. 14, 1871
117,775	Hart, Volkert O. and John Benjamin, Naples, N. Y. Extension-lounge	Aug. 8, 1871
	Hart, William H., jr., and Hiram H. Thayer. (See Thayer & Hart.)	
	Hart, William H., jr., and James Hayden. (See Hayden & Hart.)	
5,130	Hartell, Thomas R., assignor to Hartell & Letchworth, Philadelphia, Pa. Jelly-glass	July 18, 1871
120,273	Harter, Theodore, Ilion, N. Y. Hay-elevator	Oct. 24, 1871
	Hartford Carpet Company. (See Malkin, Levi G., assignor.) (Ten cases.) (Design.)	
	Same.....(See Smith, John H., assignor).....(Five cases.) (Design.)	
	Same.....(See Barrett, Joseph, assignor).....(Two cases.) (Design.)	
	Same.....(See Fisher, John, assignor).....(Six cases.) (Design.)	
	Same.....(See Ney, Elemer J., assignor).....(Twenty-two cases.) (Design.)	
	Same.....(See Upson, Lyman A., assignor).....(Design.)	
	Same.....(See Heinigke, Otto, assignor).....(Five cases.) (Design.)	
	Same.....(See Barclay, Thomas, assignor).....(Design.)	
	Hartley, M. (See Moore, Charles A., assignor.)	
121,363	Hartley, Thomas, Bridgeport, Ohio. Stove-grate	Nov. 28, 1871
118,237	Hartman, Alexander, Murfreesborough, Tenn. Dental-drill	Aug. 22, 1871
115,731	Hartman, Christian F., Nazareth, Pa. Wine-press	June 6, 1871
114,812	Hartman, Daniel F., Charles City, Iowa. Spring-guards for legs of furniture	May 16, 1871
111,842	Hartman, Duncan C., Baltimore, Md. Earth-closet	Feb. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
117,776	Hartman, Samuel H., Allegheny, Pa. Blower.....	Aug. 8, 1871
121,100	Hartmann, Adolph, New York, N. Y. Stud-fastener.....	Nov. 21, 1871
116,589	Hartmann, Dominikus, Mansfield, Ohio. Support for mirror and picture frames.....	July 4, 1871
	Hartshorn, Charles H., <i>et al.</i> (See Gray, Joshua, assignor.).....	
110,651	Hartshorn, Henry M., Malden, Mass. Folding lamp-shade.....	Jan. 3, 1871
113,879	Hartshorn, Stewart, New York, N. Y. Spring-roller shade.....	April 18, 1871
113,164	Harty, William, Bridgeport, Conn. Machine for forming carriage-springs.....	Mar. 28, 1871
4,751	Hartzell, George, assignor to John P. Reifsneider, Philadelphia, Pa. Ornament for the backs of lounges..... (Design).....	April 4, 1871
115,732	Hartzell, George, and John P. Reifsneider, Philadelphia, Pa. Bed-lounge.....	June 6, 1871
	Hartzell, Jacob, and John McCallum. (See McCallum & Hartzell.).....	
	Harvey & Ford. (See Watts, John, assignor.)..... (Design.).....	
	Harvey, Alfred C., and Orrin C. Dow. (See Dow & Harvey.).....	
114,290	Harvey, Charles R., and James H. Foote, assignors to Charles R. Harvey, New York, N. Y. Stove-grate.....	May 2, 1871
119,087	Harvey, Charles W., Buffalo, N. Y. Device for lubricating railway-journals....	Sept. 19, 1871
	Harvey, C. W. (See Hanna, John C., assignor.).....	
115,849	Harvey, H., Meriden, Ill. Bee-hive.....	June 13, 1871
121,050	Harvey, Hayward A., assignor to Manhattan Brush Manufacturing Company, Orange, N. J. Brush.....	Nov. 21, 1871
118,238	Harvey, Joseph, Painesville, Ohio. Lock-nut.....	Aug. 22, 1871
111,120	Harvey, Patrick, Chicago, Ill. Pump.....	Jan. 24, 1871
120,515	Harvey, Willard H., Bangor, Me. Lubricator for axles and other spindles.....	Oct. 31, 1871
122,011	Harvey, William, Albany, N. Y. Keeper for door-latches.....	Dec. 19, 1871
118,239	Harwood, Charles H., Salem, Mass. Means for extinguishing gas-lights.....	Aug. 22, 1871
118,717	Harwood, John, and F. Le Grand Ames, Albany, N. Y. Holder for grinding scissors.....	Sept. 5, 1871
4,947	Harwood, Luther W., assignor to Fuller, Warren & Co., Troy, N. Y. Stove. (Design).....	May 30, 1871
5,448	Same..... Cooking-range..... (Design).....	Dec. 26, 1871
13,656	Harwood, William P., assignor to James F. Hall and John L. Marshall, Cambridge, N. Y. Vise.....	April 11, 1871
	Haseltine, James A., <i>et al.</i> (See Branch, Haseltine, Branch & Branch.).....	
121,245	Haserick, Ernest C., Lake Village, N. H. Preparing iron chips, shavings, &c., for melting.....	Nov. 28, 1871
116,835	Haskell, Ezra, Dover, N. H. Cam for roving.....	July 11, 1871
120,194	Same..... Alarm-pump for vessels.....	Oct. 24, 1871
115,733	Haskell, William O., Boston, Mass. Inkstand.....	June 6, 1871
113,657	Haskin, Henry P., Roscoe, Ill. Farm-gate.....	April 11, 1871
115,314	Haskins, Charles H., Chicago, Ill. Automatic telegraph-repeater.....	May 30, 1871
121,170	Haskins, David Greene, Cambridge, Mass. Gas-heater.....	Nov. 21, 1871
4,259	Haskins, John, Boston, Mass. Perforated sheet-rubber..... (Reissue).....	Feb. 14, 1871
115,198	Haskins, John F., Fitchburgh, Mass. Pneumatic engine.....	May 23, 1871
115,464	Same..... Alarm-baton.....	May 30, 1871
117,626	Same..... Supplying water to air-pumps.....	Aug. 1, 1871
122,012	Haskins, Leonard G., Newport, N. Y. Dental forceps.....	Dec. 19, 1871
	Haskins, Joseph W. (See Hall, William H., assignor.).....	
115,053	Hastings, Azaria Horace, New York, N. Y. Front-fall for pianos.....	May 23, 1871
116,182	Hastings, A. Horace, Jersey City, N. J. Upright piano-forte action.....	June 20, 1871
119,760	Hastings, Azariah H., New York, N. Y. Piano-forte.....	Oct. 10, 1871
113,343	Hastings, Emory B., assignor to self, Edwin Sawyer, Daniel L. Thompson, and Charles A. Perley, Palmer, Mass. Loom.....	Jan. 31, 1871
117,281	Hastings, E. Warren, Boston, Mass. Incense-burner. (Antedated July 21, 1871).....	July 25, 1871
118,126	Same..... Illuminating incense-burner.....	Aug. 15, 1871
121,941	Same..... Reclining and folding chair. (Antedated Dec. 1, 1871).....	Dec. 19, 1871
	Hastings, Luther C. (See Braley, Ephraim, assignor.).....	
116,527	Hastings, Martin E., Salisbury, Md. Hand-car.....	Jan. 27, 1871
115,850	Haszinger, George M., Vicksburgh, Miss. Beer-cooler.....	June 13, 1871
	Hatch, Anson, <i>et al.</i> (See Nettleton, Raymond & Hatch)..... (Extension.).....	
	Hatch, Frederick A., <i>et al.</i> (See Russell, Titus H., assignor.).....	
120,970	Hatch, George Cliffe, India. Postage-stamp holder.....	Nov. 14, 1871
117,627	Hatch, Jesse W., Rochester, N. Y. Apparatus for crimping the stiffening of boots and shoes.....	Aug. 1, 1871
121,780	Hatch, Jonathan, assignor to Smith, Winchester & Co., South Windham, Conn. Paper-pulp engine.....	Dec. 12, 1871
	Hatch, N. B. (See Hyams, Hyam Jacob, assignor.).....	
119,606	Hatch, Warren D., assignor to self, Shepard Russell, and Henry O. Goodrich, Antrim, N. H. Caster for sewing-machines.....	Oct. 3, 1871
115,465	Hatch, William P., Lincoln Centre, Me. Combined hand-spinning and reeling machine.....	May 30, 1871
120,274	Hatcher, Julius W., Bethesda, Tenn. Cultivator.....	Oct. 24, 1871
113,428	Hatcher, William Z., assignor to self and William L. Lance, Plymouth, Pa. Valve and valve-gear.....	April 4, 1871
	Hatfield, Liwellyn T., and Amos W. Filer. (See Filer & Hatfield.).....	
	Hathaway, Clemons. (See Cole, George P., assignor.).....	
	Hathaway, Jerome W., <i>et al.</i> (See Thomas, Craig, Craig & Hathaway.).....	
119,141	Hathaway, William, Northbridge, Mass. Gate.....	Sept. 19, 1871
121,517	Hathorn, George H., Bangor, Me. Spinning-machine.....	Dec. 5, 1871
	Hathorne, William H. (See Fifield, Levi W., assignor.).....	
111,203	Haug, Carl W., assignor to self and Henry Bunz, New York, N. Y. Beer-cooler.....	Jan. 24, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,064	Haupt, William W., Mountain City, Tex. Chair.....	Oct. 17, 1871
117,072	Hause, Elmer, and Libin Kelley, Tecumseh, Mich. Animal-trap.....	July 18, 1871
114,438	Havard, Charles, New York, N. Y. Manufacture of candles.....	May 2, 1871
4,858	Havell, George, Newark, N. J. Handle-cap for satchels..... (Design)..	May 2, 1871
117,882	Same.....Buckle.....	Aug. 8, 1871
120,275	Havemeyer, Hector C., New York, N. Y. Suspended lifting-jack.....	Oct. 24, 1871
4,924	Haven, James L., Cincinnati, Ohio. Housing-plate..... (Design)..	May 23, 1871
5,148	Same.....Caster..... (Design)..	Aug. 1, 1871
	Same.....(See Griiter, Thomas W., assignor.)	
	Haven, James L., & Co. (See Fry, Henry L., assignor)..... (Two cases)	
	Same.....(See Rædefer, Joseph, deceased, by Ann M. Rædefer, adminis- tratrix.)	
118,608	Havens, Alonzo F., Brooklyn, N. Y. Seal for dip-pipes in gas-apparatus.....	Aug. 29, 1871
118,609	Same.....Apparatus for purifying gas.....	Aug. 29, 1871
122,250	Same.....Cover for gas-retorts.....	Dec. 26, 1871
113,766	Haviland, Benjamin, Hudson, N. Y., and George H. Gunn, Ilion, N. Y. Parlor air-pistol.....	April 18, 1871
	Haviland, John H., et al. (See Antisdell, Cronk & Haviland.)	
	Haw, John, Hanover County, Va. Picker sawing-machine..... (Extension)..	June 21, 1871
117,415	Haw, Robert A., New York, N. Y. Potato-digger.....	July 25, 1871
111,058	Hawe, Matthew, Albany, N. Y. Construction of barrels for beer, &c.....	Jan. 17, 1871
	Hawes & Hersey. (See Hersey, Charles H., assignor.)	
120,260	Hawes, George W., New York, N. Y. Advertising-album.....	Oct. 24, 1871
112,707	Hawes, Herbert H., Mount Meridian, Va. Dough-kneader.....	Mar. 14, 1871
	Hawes, James H. and George. (See Brock, Orville M., assignor.)	
119,607	Hawes, James M., Covington, Ky. Concrete-pavement.....	Oct. 3, 1871
120,065	Hawes, Samuel W., assignor to Richard W. Hawes, trustee, Jersey City, N. J. Device for discharging grain from railway-cars.....	Oct. 17, 1871
114,135	Hawk, George W., Chicago, Ill. Wheel-skate.....	April 25, 1871
118,802	Hawkes, Albert G., assignor to D. L. Bartlett and H. W. Robbins, Baltimore, Md. Rustic seat.....	Sept. 12, 1871
114,813	Hawkes, David B., assignor to George E. Lucas, Providence, R. I. Spring- hinge.....	May 16, 1871
120,276	Hawkins, David L., Poughkeepsie, N. Y. Water-closet seat.....	Oct. 24, 1871
116,594	Hawkins, Frank M., Indianapolis, Ind. Reversible seat.....	July 4, 1871
110,915	Hawkins, Gardner C., Boston, Mass. Air-engine or fan-blower.....	Jan. 19, 1871
113,658	Hawkins, Gardner C., and Albert G. Mead, Boston, Mass., and Vivian Kimball Spear, Lynn, Mass. Boot and shoe heel-burnishing machine.....	April 11, 1871
	Hawkins, Lindley A., and David M. Cochran. (See Cochran & Hawkins.)	
120,642	Hawkins, Lorenzo D., Stoncham, Mass. Cutting up and punching sole-leather.	Nov. 7, 1871
117,537	Hawkins, Robert, and Albert A. Hill, Beallville, Pa. Medical compound for kidney diseases.....	Aug. 1, 1871
120,433	Hawkins, William, San Francisco, Cal. Milling-machine.....	Oct. 31, 1871
118,362	Hawley, Benjamin R., Normal, Ill. Brick-kiln.....	Aug. 22, 1871
115,851	Hawley, Charles F., Kansas City, Mo. Angular strap-hinge.....	June 13, 1871
	Hawley, Edwin H., and George H. Suck. (See Snow & Hawley.)	
111,121	Hawley, Richard, jr., Detroit, Mich. Evaporator.....	Jan. 24, 1871
118,933	Hawley, Samuel F., Constableville, N. Y. Recoil-obviator for ordnance.....	Sept. 12, 1871
	Hawn, Guilford, and Abram I. Quackenbush. (See Quackenbush & Hawn.) (Reissue.)	
119,142	Haworth, Lysander L., assignor to self, Mahlon, George D., and James W. Haworth, Decatur, Ill. Corn-planter.....	Sept. 19, 1871
	Hay, James, and John C. Butterfield. (See Butterfield & Hay)..... (Reissue.)	
116,956	Hay, William, and Thomas B. Freeman, Hillsborough, Oreg. Gang-plow. (Antedated July 4, 1871.)	July 11, 1871
114,291	Haycock, Benjamin A., Richland, Iowa. Draught-promoter.....	May 2, 1871
	Hayden & Hahn. (See Carter & Mets, assignors)..... (Reissue.)	
120,740	Hayden, George, assignor to William C. Griswold, Newark, N. J. Adjustable banding-ring for hat-blocking machines.....	Nov. 7, 1871
121,942	Hayden, Henry F., Washington, D. C. Air-register.....	Dec. 19, 1871
4,829	Hayden, Hiram W., assignor to Holmes, Booth & Hayden, Waterbury, Conn. Lamp-burner..... (Design)..	April 18, 1871
4,830	Same.....same..... (Design)..	April 18, 1871
115,315	Same.....same.....	May 30, 1871
115,466	Same.....same.....	May 30, 1871
115,955	Same.....Argaud-lamp burner.....	June 13, 1871
4,541	Same.....Lamp-burner..... (Reissue.)	Sept. 5, 1871
	Hayden, Isaac, Lawrence, Mass. Machine for cleaning and separating cotton, wool, fur, and other fibrous materials..... (Extension)..	Mar. 16, 1871
	Same.....Boston, Mass. Bobbin for roving and slubbing..... (Extension)..	July 21, 1871
	Same.....Lawrence, Mass. Long-trunk for cleaning cotton..... (Extension)..	Dec. 12, 1871
113,659	Hayden, James, Philadelphia, Pa. Shirt.....	April 11, 1871
119,608	Hayden, James, and William H. Hart, jr., Philadelphia, Pa. Scarf or neck-tie holder.....	Oct. 3, 1871
118,012	Hayden, Joel, jr., Haydenville, Mass. Self-closing faucet.....	Aug. 15, 1871
119,516	Hayden, Joseph L., Haydenville, Mass. Chuck for holding valve-cocks to be dressed.....	Oct. 3, 1871
122,168	Hayden, Nathan, Chicago, Ill. Folding hat-rack. (Antedated Dec. 9, 1871).....	Dec. 26, 1871
111,450	Hayden, William B., Columbus, Ohio. Cartridge-belt.....	Jan. 31, 1871
119,270	Same.....Damper.....	Sept. 26, 1871
117,282	Haye, Augustus, New York, N. Y. Adjustable reflector for lamps, &c.....	July 25, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,271	Haye, Augustus, Morrisania, N. Y. Combined fastener for sash and blinds.....	Sept. 26, 1871
120,516	Hayen, Jacob F., Buffalo, N. Y. Steam-boiler.....	Oct. 31, 1871
	Hayes, Alexander, <i>et al.</i> (See Gibson, Samuel, assignor.)	
115,852	Hayes, Daniel, and John Martin, Cambridge, Mass. Machine for bending spouts.	June 13, 1871
118,365	Hayes, Eli B., Vergennes, Vt. Cutter-head.....	Aug. 22, 1871
120,594	Hayes, George, New York, N. Y. Skylight, conservatory, and other glazed structures.....	Mar. 14, 1871
118,250	Hayes, John, Philadelphia, Pa. Infants' chair.....	Aug. 22, 1871
119,761	Hayes, John P., Philadelphia, Pa. Gas-heater.....	Oct. 10, 1871
	Hayes, J. R., <i>et al.</i> (See Bullard, O. Flagg, assignor.)	
118,718	Hayes, Martin Peter, Seafirth, Canada. Evaporator for brine.....	Sept. 5, 1871
116,836	Hayes, Samuel J., and Edward T. Jeffery, Chicago, Ill. Locomotive-boiler.....	July 11, 1871
110,652	Hayman, William, assignor to self and William R. Black, Taunton, Mass. Composition for preserving wood.....	Jan. 3, 1871
121,518	Haynes, Cornelius E., Boston, Mass. Machine for packing sugar.....	Dec. 5, 1871
115,607	Haynes, Edgar K., Boston, Mass. Lamp-wick tube.....	June 6, 1871
115,608	Same..... Lamp-burner.....	June 6, 1871
	Haynes, N. (See Knowlton, George, assignor.)	
	Haynes, W. D. (See Pile, George, assignor.)	
116,183	Hays, William C., and John D. Scott, Sharonville, Ohio. Hog-stock.....	June 20, 1871
118,610	Hays, William C., and John S. Pancake, Sharonville, Ohio. Girth.....	Aug. 29, 1871
119,239	Hayward, Mary A., Brooklyn, N. Y. Electric and vapor chair.....	Sept. 25, 1871
110,653	Hayward, Samuel, assignor to self and Luther E. Kimball, Boston, Mass. Reclining and rocking chair.....	Jan. 3, 1871
119,143	Hayward, Mary A., Norwich, N. Y. Tilting-chair.....	Sept. 19, 1871
111,743	Hazard, Benjamin I., Georgetown, S. C. Extracting turpentine from trees.....	Feb. 14, 1871
	Hazard, Fisher, <i>et al.</i> (See Wilson, Joseph B., assignor.).....(Two cases.)	
114,292	Hazard, William T., Randolph, Mass. Crib or cradle.....	May 2, 1871
113,429	Hazelton, George H. and Dwight W., Philadelphia, Pa. Coal-scuttle.....	April 4, 1871
113,767	Hazen, John W., West Hartford, Vt. Traction-engine.....	April 18, 1871
114,677	Hazen, Loren E., Fond du Lac, Wis. Windmill.....	May 9, 1871
	Hazen, Nathan W. (See Collinson, Henry, assignor.)	
	Head, Jeremiah, <i>et al.</i> (See Jones, Howsen & Giers, assignors.)	
117,416	Head, Joseph, Andover, N. Y. Water-heater.....	July 25, 1871
112,034	Heafer, Napoleon B., Bloomington, Ill. Road-bed.....	Feb. 21, 1871
4,879	Heald, Alfred, assignor to McCallum, Crease & Sloan, Philadelphia, Pa. Carpet-pattern.....(Design).....	May 9, 1871
4,880	Same..... Carpet-pattern.....	May 9, 1871
4,881	Same..... same.....	May 9, 1871
4,882	Same..... same.....	May 9, 1871
4,883	Same..... same.....	May 9, 1871
5,375	Same..... same.....	Nov. 21, 1871
5,376	Same..... same.....	Nov. 21, 1871
5,390	Same..... same.....	Nov. 25, 1871
5,391	Same..... same.....	Nov. 25, 1871
	Heald, Martin C. (See Keene, George A., assignor.)	
113,880	Heald, Issachar A., Lowell, Mass. Cigar-machine.....	April 18, 1871
	Heald, William Hesketh, <i>et al.</i> (See Parkinson, Metcalf & Heald.)	
4,661	Healey, Benjamin W., Providence, R. I. Iron-tender frame.....(Reissue).....	Dec. 5, 1871
116,957	Healy, Dorus, South Danville, N. Y. Wagon-brake.....	July 11, 1871
113,660	Hearn, George A., jr., New York, N. Y. Show-case.....	April 11, 1871
116,306	Same..... same.....	June 27, 1871
5,072	Hearn, William, New York, N. Y. Combination-game board.....(Design).....	July 4, 1871
115,609	Hearne, John C., assignor to self and George W. Deitzler, Pleasant Hill, Mo. Railroad hand-car.....	June 6, 1871
120,643	Hearst, Alexander, Peoria, Ill. Corn-planter.....	Nov. 7, 1871
	Heath & Smith Manufacturing Company. (See Smith, William H., assignor.)	
	Same.....(See Stetson, Thomas D., assignor).....(Design.)	
121,364	Heath, Arden A., Mercer, Pa. Steam-engine.....	Nov. 28, 1871
118,127	Heath, Benjamin S., Philadelphia, Pa. Marine propulsion.....	Aug. 15, 1871
	Heath, Elander. (See Pomeroy, David, assignor.)	
114,814	Heath, Elander, assignor to S. W. Shaw, William E. Brown, and Leonard Goss, San Francisco, Cal. Dovetailing-machine.....	May 16, 1871
110,654	Heath, Elisha S., Baltimore, Md. Base-burning fire-place heater.....	Jan. 3, 1871
119,705	Heath, Eugene A., New York, N. Y. Cuspadore.....	Oct. 10, 1871
119,706	Same..... same.....	Oct. 10, 1871
113,661	Heath, George, Little Falls, N. Y. Canal-lock valve.....	April 11, 1871
4,455	Heath, Henry, assignor to H. G. Fisk, Thomas R. Clark, and Thomas J. Flagg, New York, N. Y. Drawer.....(Reissue).....	July 4, 1871
119,762	Heath, Mark Antony, Providence, R. I. Street-lantern.....	Oct. 10, 1871
114,556	Heath, Robert F. S., Philadelphia, Pa. Mosquito-bar.....	May 9, 1871
	Heath, Thomas. (See Antenrieth, Charles, assignor.).....(Design.)	
4,505	Heath, Vilas M., Merristown, Vt. Clothes-rack.....(Reissue).....	Aug. 8, 1871
115,054	Heath, William, Bath, Me. Invalid-bedstead.....	May 23, 1871
118,719	Same..... Reclining-chair.....	Sept. 5, 1871
113,662	Heatwole, Gabriel D., Bridgewater, Va. Chair and bed combined.....	April 11, 1871
114,940	Heatwole, Simeon H., Bridgewater, Va. Railway-gate.....	May 16, 1871
118,128	Heavner, Andrew J., Pittsfield, Ill. Adjustable scaffolding.....	Aug. 15, 1871
121,246	Hebard, Albert K., Boston, Mass. Reed-organ.....	Nov. 25, 1871
4,335	Hebbard, Albert, assignor to self and John P. Onderdonk, Buffalo, N. Y. Car-spring.....(Reissue).....	April 11, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,768	Hebbard, Albert, assignor to self and John P. Onderdonk, Cambridge, Mass. Car-spring	April 18, 1871
4,670	Same.....Car-spring.....(Reissue).....	Dec. 12, 1871
115,467	Heberling, John, Mount Pleasant, Ohio. Coffee-pot	May 30, 1871
120,381	Same.....Whip-socket.....	Oct. 31, 1871
118,611	Heberling, William L., Mount Pleasant, Ohio, and John U. Fiester, Winchester, Ohio; said Fiester assignor to said Heberling. Snap-hook	Aug. 29, 1871
118,720	Heberling, William L., assignor to self and John Heberling, Mount Pleasant, Ohio. Vegetable-cutter	Sept. 5, 1871
117,628	Hebert, Henry B., New York, N. Y. Fluid-meter	Aug. 1, 1871
112,915	Hecht, Ansel, New York, N. Y. Center-point trimming	Mar. 21, 1871
	Hecht, Leopold. (See Schaltz, Joseph, assignor.)	
	Heckle, William. (See Mitchell, Chauncey L., assignor.)	
111,204	Heckman, Henry L., Brooklyn, Iowa. Bee-hive	Jan. 24, 1871
120,741	Hecox, John J., Lyons, N. Y. Cheese-box	Nov. 7, 1871
116,307	Hedge, Eder, Liverpool, Ill., and Thornton H. Fleming, Canton, Ill. Clothes-clamp	June 27, 1871
	Hedger, Stephen W., and Frederick Yeiser. (See Yeiser & Hedger.)	
117,538	Hedges, George E., Ashland, Nebr. Miter-box	Aug. 1, 1871
120,434	Hedges, George W., San Francisco, Cal. Friction-clutch	Oct. 31, 1871
115,199	Hedges, Israel, Radnor, Ohio. Harvester-dropper	May 23, 1871
	Hedges, John L., and Benjamin T. Parsels. (See Parsels & Hedges.)	
112,035	Hedges, William H., Newark, N. J. Faucet	Feb. 21, 1871
111,205	Hedges, William H., and Matthew E. Campfield, Newark, N. J. Cock	Jan. 24, 1871
111,206	Hedrick, Jacob, William Tash, and Henry Kreidler, York, Pa. Machine for cutting and dressing stone	Jan. 24, 1871
120,066	Heebner, David S. and Josiah D., Norritonville, Pa. Horse-power	Oct. 17, 1871
121,519	Heermance, Garet G., Claverack, N. Y. Device for fastening wagon-seats. (Antedated Nov. 25, 1871)	Dec. 5, 1871
115,200	Heery, Luke M., Hinsdale, Mass. Cloth-steaming apparatus	May 23, 1871
4,575	Same.....Steaming and cooling cloth.....(Reissue).....	Oct. 3, 1871
116,440	Heesen, John and George, and Henry Nyland, Tecumseh, Mich. Instrument for ringing hogs	June 27, 1871
116,308	Hefley, Samuel, and James D. Pettit, Rochester, Ind. Adjustable and folding wagon-bed	June 27, 1871
114,678	Hefner, Daniel, Independence, Iowa. Millstone condenser and ventilator	May 9, 1871
117,883	Hefebower, Daniel P., Champaign County, Ohio. Device to prevent hogs from rooting	Aug. 8, 1871
118,366	Hege, Constantine A., Forsyth County, N. C. Rotary steam-engine	Aug. 22, 1871
115,201	Heiges, George W., Franklinton, Pa. Combined thrasher, grain separator and cleaner	May 23, 1871
	Heiks, L. L. (See Weaver, Adam, assignor.)	
5,073	Heinigke, Otto, assignor to Hartford Carpet Company, New York, N. Y. Carpet-pattern	July 4, 1871
5,331	Same.....Carpet-pattern.....(Design).....	Oct. 31, 1871
5,332	Same.....same.....(Design).....	Oct. 31, 1871
5,333	Same.....same.....(Design).....	Oct. 31, 1871
5,392	Same.....same.....(Design).....	Nov. 28, 1871
120,816	Heintzelman, Rnsh B., assignor of one-half interest to Amzi S. Dodd, New York, N. Y. Inhaler	Nov. 14, 1871
115,468	Heiss, John M., Baltimore, Md. Cooling and preserving beer and other liquids on draught	May 30, 1871
116,053	Same.....Apparatus for cooling and discharging beer and other liquids on draught	June 20, 1871
	Heister, Tobias S., and Nicholas S. Vedder. (See Vedder & Heister.)	
	Same.....same.....(Five cases.) (Design).....	
122,013	Heister, William D., Newton Hamilton, Pa. Hasp-lock	Dec. 19, 1871
111,744	Helenbrook, John, Olean, N. Y. Bark-mill	Feb. 14, 1871
	Hellins, William. (See Richardson, Frederick C., assignor.)	
	Helm, Augustus L., et al. (See Vaughn, Daniel, assignor.)	
115,202	Helm, John, jr., New Brunswick, N. J. Bleaching rubber, gutta-percha, &c.	May 23, 1871
122,014	Helm, J. Henry, Pittsburgh, Pa. Projectile	Dec. 19, 1871
112,595	Helm, Shelby W., assignor to Britton Capell and William J. Rose, Bachelor Valley, Cal. Medical compound for treating bronchial and lung diseases	Mar. 14, 1871
	Helmling, Harry, and George Laynor. (See Laynor & Helmling.)	
115,853	Helms, Charles H., Poughkeepsie, N. Y. Mechanism for polishing the heels of boots and shoes	June 13, 1871
117,283	Same.....Machine for polishing boot and shoe heels	July 25, 1871
119,707	Same.....Boot and shoe heel polisher	Oct. 10, 1871
119,144	Helms, John W., Bainbridge, Ga. Medical compound or liniment for rheumatism, &c.	Sept. 19, 1871
111,059	Helwig, Arthur, assignor to self and Simon Collins, England. Sewing-machine	Jan. 17, 1871
122,015	Hemmings, Robert, Covington, Ky. Molding telegraph-insulators	Dec. 19, 1871
	Hemmings, Edward, et al. (See Frowen, Hemmings & Sheldon.)	
4,424	Hempel, John C., Baltimore, Md. Diaper	June 13, 1871
	Hempstead, William A., and David W. Huntington. (See Huntington & Hempstead)	
	Same.....(Two cases.)	
115,854	Henderson, Benjamin I., Salem, Mass. Rotary engine	June 13, 1871
113,881	Henderson, Constantine, assignor to Edwin R. Hall, England. Arched structure	April 18, 1871
112,453	Henderson, Edmond Q., assignor to John C. Burroughs and Richard A. Springs, Charlotte, N. C. Composition for lubricating machinery	Mar. 7, 1871
121,365	Henderson, William Lindsay, Western India. Cotton-gin	Nov. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,843	Hendex, Henry J., Wolcottville, Conn. Clothes-line fastener	Feb. 14, 1871
114,815	Hendrick, Eli E., Carbondale, Pa. Needle-setter, needle-sharpener, needle-case, and ripper.	May 16, 1871
111,451	Hendrick, John H., Clinton, Ill. Bee-hive.	Jan. 31, 1871
115,610	Hendrickson, Stephen C., Brooklyn, E. D., N. Y. Railroad danger-signal.	June 6, 1871
117,170	Hendry, John C., Manchester, N. H. Machine for boring wheel-hubs for setting boxes.	July 18, 1871
	Hendy, Joshua, and George Stevens. (See Stevens & Hendy.)	
113,165	Henkle, John F., Saint Louis, Mo. Horse hay-rake.	Mar. 28, 1871
111,207	Henkle, Thomas B., Knightstown, Ind. Box-opener.	Jan. 24, 1871
113,430	Henley, Henry, Shoals, Ind. Boot-crimper.	April 4, 1871
116,441	Henley, William, Chicago, Ill. Fire-escape.	June 27, 1871
	Hennaman, John T. (See Wettstein, John, assignor.)	
	Henning, Theodore, and Adolph Schnabel. (See Schnabel & Henning.)	
	Henri, Christian, and Jacob Dindinger. (See Dindinger & Henri.)	
116,184	Heurichs, Peter, Erie, Pa. Folding-brush.	June 20, 1871
116,185	Same.....Brush, &c., for the pocket.	June 20, 1871
119,145	Henry, Alexander, Scotland. Breech-loading fire-arm.	Sept. 19, 1871
119,846	Same.....Rifled fire-arm.	Oct. 10, 1871
114,557	Henry, John, assignor to self and Alexander Robinson, Millburn, N. J. Printing-press.	May 9, 1871
115,469	Henry, John Joseph, assignor to self and W. D. Williams, Baltimore, Md. Thread-cutter.	May 30, 1871
120,517	Henry, William, New York, N. Y. Folding-step for vehicles.	Oct. 31, 1871
117,539	Henry, William M., Leo, Ind. Bee-hive.	Aug. 1, 1871
117,629	Hensel, Henry, Moon Township, Pa. Churn.	Aug. 1, 1871
114,558	Hensley, Henry, Elysian Field, Tex. Grinding-mill.	May 9, 1871
115,316	Heoter, Peter, and Rudolph Victor, Grand Rapids, Mich. Mode of attaching caps to hubs. (Antedated May 23, 1871.)	May 30, 1871
	Hepburn, George. (See Synder, John H., assignor.)	
111,931	Herald, John, Unadilla, N. Y. Pattern for casting grooved rollers.	Feb. 21, 1871
5,368	Same.....Barn-door hinge. (Design).	Nov. 21, 1871
120,195	Herendeen, Edward W., Geneva, N. Y. Harrow.	Oct. 24, 1871
111,535	Herkner, Henry F., New York, N. Y., and Jared W. Post, Brooklyn, N. Y. Water-proof piano-cover.	Feb. 7, 1871
111,644	Hermance, Charles W., Schuylerville, N. Y. Steam road-wagon.	Feb. 7, 1871
4,311	Same.....same. (Reissue).	Mar. 28, 1871
118,934	Same.....Elastic wheel for traction-engine.	Sept. 12, 1871
4,428	Hermance, Levi, Lansingburgh, N. Y. Cooking-stove. (Reissue).	June 20, 1871
117,417	Same.....same.	July 25, 1871
112,916	Hermance, Levi, assignor of one-half interest to Peletiah J. Marsh, Lansingburgh, N. Y. Culinary vessel.	Mar. 21, 1871
121,101	Same.....Cooking-stove.	Nov. 21, 1871
113,295	Hermann, August, and Warren H. Taylor, assignors to the Yale Lock Manufacturing Company, Stamford, Conn. Pin-lock.	April 4, 1871
121,285	Herr, Abraham S., Bainbridge, Pa. Wash-boiler.	Nov. 28, 1871
118,241	Herrenman, Cassius M., Maukat, Minn. Stove-pipe clothes-drier.	Aug. 22, 1871
112,454	Herrick, Bryant B., Decatur, Mich. Post-hole digger.	Mar. 7, 1871
	Herrick, Gardner. (See Wright, E. M., assignor.) (Two cases.)	
4,552	Herriet, Julius, assignor to David Wolfe Bruce, New York, N. Y. Type. (Design).	Jan. 3, 1871
4,553	Same.....Type. (Design).	Jan. 3, 1871
4,990	Same.....same. (Design).	June 13, 1871
4,991	Same.....same. (Design).	June 13, 1871
	Herring, Charles, <i>et al.</i> (See Cole, Jonah R., assignor.)	
111,536	Herring, George H., Durand, Ill. Hydraulic apparatus.	Feb. 7, 1871
121,102	Herring, Richard, England. Printing-telegraph.	Nov. 21, 1871
120,873	Herrington, Elial S., Emmett, Ohio. Harrow.	Nov. 14, 1871
117,284	Herrmann, George, Newport, R. I. Swinging-clock.	July 25, 1871
111,537	Herrmann, Heinrich, New York, N. Y. Eolian chiming-bell.	Feb. 7, 1871
115,317	Herrmann, John and Peter, Tell City, Ind. Wagon-axle.	May 30, 1871
4,884	Herron, James A., Talley Cavey, Pa. Hay-rack. (Design).	May 9, 1871
111,538	Herron, James P., Atlanta, Ga. Double-acting rotary engine. (Antedated Jan. 30, 1871.)	Feb. 7, 1871
114,679	Herschmann, Siegmund, New York, N. Y. Lounge and chair combined.	May 9, 1871
114,137	Hersey, Charles H., assignor to Hawes & Hersey, Boston, Mass. Drier.	April 25, 1871
111,208	Hersey, David Wallace, Pembroke, Me. Vegetable-cutter.	Jan. 24, 1871
114,138	Hersey, Ira, New York, N. Y. Telegraph-pole.	April 25, 1871
	Hershberger, Henry B., and Charles C. Davey. (See Stengel & Davey.)	
112,036	Hershey, Benjamin, Erie, Pa. Trip-hammer.	Feb. 21, 1871
113,166	Same.....Torsion-spring for cars.	Mar. 28, 1871
112,037	Hershey, Benjamin, and Richard Dudley, Erie, Pa. Spring for vehicles. (See Dudley & Hershey.)	Feb. 21, 1871
113,663	Hershey, Benjamin, assignor to self, E. Geer, Richard Dudley, and Richard F. Gaggin, Erie, Pa. Staple-machine.	April 11, 1871
116,186	Same.....Torsion-spring for vehicles.	June 20, 1871
118,452	Same.....Seat-spring for wagons.	Aug. 29, 1871
116,187	Hershey, Benjamin, and Richard F. Gaggin, assignors to selves, E. Geer, and Richard Dudley, Erie, Pa. Torsion-spring for vehicles.	June 20, 1871
121,943	Hersman, Michael M., Delavan, Ill. Coffin.	Dec. 19, 1871
112,245	Herterich, Franz, Jersey City, N. J. Guide for sewing-machines.	Feb. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,277	Hervey, James C., Newport, Ky. Shuttle for sewing-machines.	Oct. 24, 1871
4,702	Herzig, Simon, New York, N. Y. Muff. (Design)	Mar. 14, 1871
116,591	Heskett, Harrison H., Le Roy, Ill. Watchmakers' chuck.	July 4, 1871
121,871	Hess, Daniel, Des Moines, Iowa. Brick-machine.	Dec. 12, 1871
	Hess, George W. (See Borthwick, John A., assignor.)	
111,060	Hesse, Frederick G., Oakland, Cal. Water-meter.	Jan. 17, 1871
	Hessemer, William. (See Rasmussen, Niels, assignor.)	
	Hessin, William. (See Danant, William Edwin, assignor.)	
115,203	Hesbach, Conrad, Chicago, Ill. Press for finishing cloth, &c.	May 23, 1871
121,247	Heuermann, John, Wilhelm Sternberg, and John Stulr, Davenport, Iowa. Harvester-rake.	Nov. 23, 1871
	Hens, Mathew, and George Darling. (See Darling & Hens.)	
110,974	Heusser, Albert, Ellington, Conn. Wedge for splitting wood.	Jan. 17, 1871
121,051	Heverling, John B., Greenville, Ohio. Car-coupling.	Nov. 21, 1871
114,559	Hewner, Samuel, San Francisco, Cal. Manufacture of illuminating-gas.	May 9, 1871
	Hewes, Joseph L., and Parley I. Perrin. (See Perrin & Hughes.)	
4,885	Hewes, Shubael E., Albany, N. Y. Heating-stove. (Design)	May 9, 1871
115,956	Same. Hot-air furnace.	June 13, 1871
115,957	Same. Heating-stove.	June 13, 1871
115,958	Same. same.	June 13, 1871
115,959	Same. Base-burning stove.	June 13, 1871
121,366	Hewitt, Albert H., Batavia, N. Y. Attachment for sewing-machines.	Nov. 28, 1871
115,855	Hewitt, Edward, and John McAuliffe, New York, N. Y. Hair-pin.	June 13, 1871
111,932	Hewitt, Elisha A., Groton, Conn. Cow-milker.	Feb. 21, 1871
120,435	Hewitt, Philip, Farmland, Ind. Sulky-cultivator.	Oct. 31, 1871
121,248	Hewlett, Alonzo S., Sebastopol, Cal. Attachment for planers.	Nov. 28, 1871
117,285	Hey, Michael, Philadelphia, Pa. Hydraulic air-compressor.	July 25, 1871
118,013	Heydrich, William H. H., Chestnut Hill, Pa. Mode of attaching plows to traction-engines.	Aug. 15, 1871
118,935	Heyer, Charles, Racine, Wis. Apparatus for turning the leaves of music.	Sept. 12, 1871
	Heyes, Grimshaw, <i>et al.</i> (See Cummings, Heyes & Entwistle.)	
116,054	Heyl, Frederick, and Phillip Diehl, East New York, N. Y. Electro-magnetic gas-lighting apparatus.	June 20, 1871
120,436	Heyl, Henry R., assignor through mesne assignments to American Paper-Box Machine Company, Philadelphia, Pa. Paper-box machine.	Oct. 31, 1871
	Heywood, Levi, <i>et al.</i> (See Aldrich & Spaulding, assignors.)	
120,382	Heywood, Levi, assignor to Heywood Bros. & Co., Gardner, Mass. Tilting-chair.	Oct. 31, 1871
115,204	Heywood, Reuben W., assignor to self and Warren T. Browning, Baltimore, Md. Propulsion of vessels.	May 23, 1871
111,539	Hiatt, Spencer, Clayton, Ind. Apparatus for transmitting power and changing the speed. (Antedated Feb. 1, 1871)	Feb. 7, 1871
121,520	Hibbard, Frank E., Boston, Mass. Device for cutting whale-bone.	Dec. 5, 1871
120,518	Hibberd, George, Wheeling, W. Va. Water-heater for stoves.	Oct. 31, 1871
120,519	Same. Safety and vacuum valve.	Oct. 31, 1871
115,205	Hice, Joseph R., Salem, Ohio. Fire-kindler.	May 23, 1871
116,708	Hichborn, William, Charlestown, Mass. Flower-bracket.	July 4, 1871
113,882	Hickcox, Thomas N., Brooklyn, N. Y. Metal-clad shingle.	April 18, 1871
115,318	Hickman, Edwin A., Independence, Mo. Apparatus for illustrating trigonometry.	May 30, 1871
	Hickman, John W., <i>et al.</i> (See Draper, Henry B. P., assignor.)	
122,016	Hickock, Samuel S., Methuen, Mass. Caster for furniture.	Dec. 19, 1871
	Hickok, William O. (See Walters, John, assignor.)	
	Hicks & Wolf. (See Vedder & Ritchie, assignors) (Design.)	
	Hicks, George C., & Co. (See Parus, Zeno F., assignor.)	
119,461	Hicks, Isaac, Hartford, Wis. Potato-digger.	Oct. 3, 1871
113,052	Hicks, James M., New York, N. Y. Tubular steam-generator. (Antedated March 11, 1871)	Mar. 23, 1871
121,781	Hicks, John W., Laurel, Md. Belt-fastening.	Dec. 12, 1871
112,455	Hicks, Levi S., assignor to self, J. P. Johnson, and John Buell, Peoria, Ill. Door-check.	Mar. 7, 1871
	Hicks, William Cleveland, Summit, N. J. Breech-loading fire-arm. (Extension)	Feb. 27, 1871
112,917	Hicks, William S., New York, N. Y. Pencil-case.	Mar. 21, 1871
120,520	Same. Pen and pencil-case.	Oct. 31, 1871
122,169	Same. same.	Dec. 26, 1871
	Hicoek, George, <i>et al.</i> (See Ely, Philip, assignor.)	
116,055	Hidden, Edward S., Millburn, N. J. Machine for tearing up leather.	June 20, 1871
	Hide and Leather Machine Company. (See Fitzhenry, Edward, assignor.) (Two cases.)	
	Hide and Leather Manufacturing Company. (See Fitzhenry, Edward, assignor.)	
121,618	Hieronimus, Jasper N., Fairbury, Ill. Bee-hive.	Dec. 5, 1871
114,816	Hiestand, David, Pughtown, Pa. Carriage-jack.	May 16, 1871
113,718	Hiestand, Samuel, Hillsborough, Ohio. Combined planter and seeder.	April 11, 1871
115,856	Hiester, Samuel E., New York, N. Y. Exercising-chub.	June 13, 1871
4,903	Hiester, Edwin C., and Gabril O. Reading, Pa. Sash-holder. (Design)	May 16, 1871
114,817	Higel, Frank, assignor of one-half interest to James A. Weir, Philadelphia, Pa. Vise.	May 16, 1871
112,038	Higgins, Charles J., Indianapolis, Ind. School desk and seat.	Feb. 21, 1871
117,418	Higgins, Edmund, Sacramento, Cal. Gate.	July 25, 1871
	Higgins, E. S., & Co. (See Wright, George C., assignor.) (Sixteen cases.) (Design.)	
8,936	Higgins, John D., Rome, N. Y. Gas-retort.	Sept. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Higgins, Johnson. (<i>See</i> Lord, Allen P., assignor.)	
111,645	Higgins, Oliver, Napoleon, Ohio. Pump.	Feb. 7, 1871
114,680	Higgins, Reuben C., Boston, Mass. Carpet-sweeper.	May 9, 1871
111,452	Higgins, Walter B., San Francisco, Cal. Feeding-mechanism for sewing-machines.	Jan. 31, 1871
113,664	Higley, Aaron, Cleveland, Ohio. Rubber-spring for wagons.	April 11, 1871
	Hildreth, George, <i>et al.</i> (<i>See</i> Ferguson, Ralston & Hildreth.)	
4,368	Hildreth, George W., Lockport, N. Y. Seat for school-desks. (Reissue.)	Feb. 21, 1871
112,246	Same. Grate for burning coal-screenings.	Feb. 28, 1871
113,665	Same. Attaching plow-points.	April 11, 1871
118,937	Same. Device for delivering and receiving mail-bags.	Sept. 12, 1871
	Hildreth, Henry A. (<i>See</i> Johnson, William J., assignor.)	
112,143	Hildreth, Henry L., Lockport, N. Y. Screw-driver.	Feb. 28, 1871
	Hill, Albert A., and Robert Hawkins. (<i>See</i> Hawkins & Hill.)	
118,612	Hill, A. Harley, Saint Johnsbury, Vt. Clothes-drier.	Aug. 29, 1871
118,555	Hill, Albert M., New Haven, Conn. Toy-hoop.	Sept. 12, 1871
4,703	Hill, Benjamin, Malden, Mass. Frame of a show-case. (Design.)	Mar. 14, 1871
121,268	Hill, Benjamin B., Springfield, Mass. Hand-stamp.	Nov. 23, 1871
5,449	Same. same. (Design.)	Dec. 26, 1871
116,502	Hill, Benjamin B. and John R., Worcester, Mass. Wheel for animal-traps.	July 4, 1871
114,005	Hill, Edward A., Chicago, Ill. Zinc for galvanic batteries.	April 25, 1871
114,006	Same. Galvanic battery.	April 25, 1871
114,007	Same. Hotel-annunciator and fire-alarm.	April 25, 1871
121,717	Same. Electric fire-alarm. (Antedated Dec. 9, 1871.)	Dec. 12, 1871
111,646	Hill, Egbert B., Grand Rapids, Mich. Spring bed-bottom.	Feb. 7, 1871
115,055	Hill, George, Galva, Ill. Corn-harrow.	May 23, 1871
118,453	Hill, George Jay, assignor to self and Charles Frederick Nagel, Buffalo, N. Y. Bottle and box opener.	Aug. 29, 1871
	Hill, Henry, <i>et al.</i> (<i>See</i> Rawson, Ovenden, Wyllie, McCree & Hill.)	
117,171	Hill, H. Harrison, Pontiac, Ill. Buggy-spring.	July 18, 1871
118,938	Hill, Henry R., and Nelson W. Twiss, New Haven, Conn. Lathe.	Sept. 12, 1871
122,251	Hill, Jacob, and James G. Stewart, Jonesville, Ind. Revolving-harrow.	Dec. 24, 1871
5,473	Hill, John, assignor to Meriden Silver-Plate Company, West Meriden, Conn. Pickle jar or caster. (Design.)	Sept. 19, 1871
112,596	Hill, John R., Rouseville, Pa. Oil-well drilling.	Mar. 14, 1871
116,309	Hill, Leonard B., assignor to self and Peter Clark, Albany, N. Y. Bracket for water-conductors.	June 21, 1871
112,456	Hill, Luther, Stoneham, Mass., and Seth D. Tripp, Lynn, Mass. Railway-car-orake	Mar. 7, 1871
115,900	Hill, Lysander, Alexandria, Va. Wood-pavement.	June 13, 1871
	Hill, Lysander, <i>et al.</i> (<i>See</i> Darrell, Armistead M., assignor.)	
	Hill, Philip, and William B. Cunningham. (<i>See</i> Cunningham & Hill.) (Three cases.)	
118,856	Hill, Porter, Millport, N. Y. Spring bed-bottom.	Sept. 19, 1871
	Hill, Samuel, <i>et al.</i> (<i>See</i> Moreau, Eugene, assignor.)	
114,293	Hill, Samuel A., and Charles F. Thumm, assignors to selves and Oliver P. Seafie, Oil City, Pa. Distilling hydrocarbon oil.	May 2, 1871
117,172	Hill, Thomas, Vallejo, Cal. Projectile. (<i>See</i> Disston & Hill.)	July 18, 1871
117,639	Hillard, James P., Fall River, Mass. Cloth-beam for looms.	Aug. 1, 1871
120,067	Hillebrand, Louis, and Daniel Wolf, Philadelphia, Pa. Trunk-lid guide.	Oct. 17, 1871
	Hillebrand, Louis, assignor to self and Daniel Wolf, Philadelphia, Pa. Trunk-lock. (Disclaimer.)	Oct. 6, 1871
112,340	Hiller, John R., Woodland, Cal. Spring for vehicles.	Mar. 7, 1871
110,761	Hillhouse, William, and George W. Briggs, assignors to the Grilley Company, New Haven, Conn. Device for nicking screw-caps.	Jan. 3, 1871
116,188	Hills, Amariah M., Hockanum, Conn. Lawn-mower.	June 29, 1871
	Hills, L. M. & Sons. (<i>See</i> Osgood, Charles M., assignor.)	
120,644	Hilsabeck, John C., Montevallo, Mo. Buggy-reach.	Nov. 7, 1871
118,855	Hilton, Samuel F., Providence, R. I. Paper-collar.	Sept. 12, 1871
	Heaton, William D., <i>et al.</i> (<i>See</i> Caswell, William A., assignor.)	
119,763	Himmer, Vitalis, New York, N. Y. Electric battery.	Oct. 16, 1871
112,808	Hinden, Mathias Joseph, assignor to Adolph Freund, Detroit, Mich. Apparatus for cutting the ends of cigars.	Mar. 21, 1871
5,235	Hindman, Samuel B., and William N. Matthews, assignors to selves, Merrick C. Weeks, and Edward B. Matthews, Richmond, Ind. Spoke-socket rim for hubs. (Design.)	Aug. 29, 1871
121,572	Hinde, Thomas Callender, England. Manufacture of iron and steel, and in furnaces for the same.	Dec. 12, 1871
119,982	Hines, George A., assignor of one-half interest to John F. Vinton, Brattleboro, Vt. Railroad-car ventilator.	Oct. 17, 1871
	Hines, George A., and John P. Vinton. (<i>See</i> Vinton & Hines.)	
111,344	Hines, George W., Brookfield, Wis. Harvester-rake.	Jan. 31, 1871
116,189	Hines, Rudolph, and Louis Beyer, Washington, D. C. Machine for sharpening saws.	June 20, 1871
116,190	Same. Machine for sharpening saws.	June 20, 1871
114,008	Hingher, Constantine, New Brunswick, N. J. Combined rattling-shuttle and cratchet-needle.	April 25, 1871
115,470	Hinkley, Benjamin, Troy, N. Y. Railway-switch.	May 30, 1871
113,606	Hinkley, George M., Milwaukee, Wis. Machine for sapping timber for shingles.	April 11, 1871
114,681	Hinman, David, Southington, Conn. Head-block for carriages.	May 9, 1871
121,718	Hinman, William A., New York, N. Y. Bottle-wrapper.	Dec. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,457	Hinault, Adam, Montgomery, N. Y. Truss.....	Mar. 21, 1871
117,540	Hinsdell, Samuel H., Camillus, N. Y. Mortar-machine.....	Aug. 1, 1871
113,296	Hinsdell, Samuel H., Henry W. Drake, and Cornelius B. Way, Camillus, N. Y. Grain scower and separator.....	April 4, 1871
4,542	Hintz, Julius C., jr., Cincinnati, Ohio. Permutation-lock..... (Reissue).....	Sept. 5, 1871
111,933	Hipkins, Edward, Burford Township, Canada. Self-adjusting car-truck.....	Feb. 21, 1871
111,934	Same..... same.....	Feb. 21, 1871
120,383	Hipwell, Thomas, assignor to self and Henry Coulter, Camden, N. J. Lamp-burner.....	Oct., 31, 1871
119,517	Hird, Isaac, Cincinnati, Ohio. Scroll-saw.....	Oct. 3, 1871
114,009	Hires, Phillip, Columbus, Ky. Hinge for table-leaves, &c.....	April 25, 1871
120,585	Hirons, John, Buchanan, Mich. Combined clothes-drier and pendent seat.....	Nov. 7, 1871
	Hirschl, Samuel. (See Schmidt, Johann, assignor.)	
111,453	Hirsh, Mason and Leopold, Philadelphia, Pa. Umbrella.....	Jan. 31, 1871
114,941	Hisey, Allen, Tama City, Iowa. Tanning compound.....	May 16, 1871
	Hitchcock, Benjamin W., and John Bevan. (See Bevan & Hitchcock.)	
118,129	Hitchcock, Charles, Chicago, Ill. Hydrocarbon-stove.....	Aug. 15, 1871
114,139	Hitchcock, Dwight, and Willis Gibbs, assignors to Oliver T. Burt, Syracuse, N. Y. Machine for the manufacture of roofing.....	April 25, 1871
4,494	Hitchcock, Marcus T., assignor to John W. Labaree, Springfield, Mass. Rail-road-car ventilator..... (Reissue).....	Aug. 11, 1871
115,611	Hitchings, Daniel, Litchfield, N. Y. Mode of expanding wheels.....	June 6, 1871
118,532	Hite, Joseph C., assignor to self and Charles Le R. Moss, Mound City, Ill. Paddle-wheel.....	Aug. 29, 1871
120,521	Hitt, Edgar, and Andrew Lent, Katona, N. Y. Machine for upsetting tires.....	Oct. 31, 1871
117,073	Hix, Oliver P., Rockland, Me. Windlass.....	July 18, 1871
119,847	Hoag, Claudius L., and Ellsworth Ely, Lockport, N. Y. Refrigerating-car.....	Oct. 10, 1871
111,454	Hoagland, James, and Isaac C. McDonald, Columbus, Ohio. Manufacture of soap.....	Jan. 31, 1871
114,818	Hoare, Esther, Dedham, Mass. Baby's traveling and toilet chair.....	May 16, 1871
4,752	Hoare, John, New York, N. Y. Caster-bottle..... (Design).....	April 4, 1871
119,933	Hobart, Franklin, Mount Pleasant, Iowa. Curtain fixture.....	Oct. 17, 1871
113,431	Hobbs, Alfred C., Bridgeport, Conn. Bullet-patch.....	April 4, 1871
117,173	Same..... Metallic cartridge.....	July 18, 1871
119,357	Same..... Cartridge-shell for drill purposes.....	Sept. 26, 1871
120,196	Hobbs, Alfred C., and Jerome Orcutt, Bridgeport, Conn. Primer for cartridges.....	Oct. 24, 1871
117,286	Hobbs, Isaac H., Philadelphia, Pa. Pavement.....	July 25, 1871
118,454	Same..... Window-blind.....	Aug. 29, 1871
4,689	Hobbs, John H., Wheeling, W. Va. Sugar-bowl, &c..... (Design).....	Feb. 28, 1871
114,140	Hobbs, John H., Charles W. Brockenriener, and William Leighton, jr., Wheeling, W. Va. Manufacture of lamp-shades.....	April 25, 1871
118,804	Hobbs, Samuel, Wilmot, Ohio. Bed-bottom.....	Sept. 12, 1871
	Hoblitzell, J. J., et al. (See Ryan, Michael G., assignor.)	
119,609	Hobson, Ben James, Covington, Ky. Stove-pipe drum.....	Oct. 3, 1871
120,742	Hobson, Richard G., Houlika, Miss. Cotton-planter.....	Nov. 7, 1871
118,533	Hockensmith, William H., Bridgeport, Conn. Diaper-pin.....	Aug. 29, 1871
	Hodenpyl, Tanison & Co. (See Pond, Robert J., assignor.)	
120,039	Hodge, Ephraim C., Oneonta, N. Y. Plow-colter.....	Feb. 21, 1871
110,655	Hodge, Francis M., Shelburne Falls, Mass. Drop-hammer lifter. (Antedated Dec. 24, 1870).....	Jan. 3, 1871
116,442	Hodge, John, Harrison, N. J. Lubricator.....	June 27, 1871
116,443	Hodge, Otis J., North Adams, Mass. Water-wheel.....	June 27, 1871
114,141	Hodges, James Wilson, Baltimore, Md. Steam-trap.....	April 25, 1871
117,287	Hodges, Samuel H., assignor to self, George A. Fullerton, O. B. Cooledge, and B. F. Larrabee, Lynn, Mass. Machine for trimming and burnishing soles.....	July 25, 1871
	Hodgetts, Charles, and William Taylor. (See Taylor & Hodgetts.)	
119,146	Hodgetts, Charles, assignor to E. Ketchum & Co., Brooklyn, N. Y. Melon-shaped mold.....	Sept. 19, 1871
	Hodgins, John C., and Joseph Dilworth. (See Dilworth & Hodgins.)	
121,367	Hodgins, Samuel, assignor to self and Ferdinand Meyer, Saint Louis, Mo. Gaiter-pattern.....	Nov. 28, 1871
119,764	Hodgkins, Christopher, Marlborough, N. H. Water-ram.....	Oct. 10, 1871
113,883	Hodgman, Marcus M., Weymouth, Mass. Excavator.....	April 18, 1871
120,743	Hodgson, Edmund D., England. Lock.....	Nov. 7, 1871
115,471	Hodgson, Isaac, and William H. Brown, Indianapolis, Ind. Fire-proof roof.....	May 30, 1871
115,472	Same..... Fire-proof beam, floor, and ceiling.....	May 30, 1871
5,106	Hodgson, Joseph, assignor to Thomas Dolan, Philadelphia, Pa. Shawl-fabric. (Design).....	July 11, 1871
5,323	Same..... Shawl-fabric..... (Design).....	Oct. 24, 1871
115,473	Hodskinson, Jabez, Salem, Mass. Machine for whitening and shaving skins and leather.....	May 30, 1871
	Hoe, R., & Co. (See Guex, Louis, assignor.)	
113,769	Hoe, Richard M., New York, N. Y. Printing-press.....	April 18, 1871
	Same..... West Farms, N. Y. Mode of operating the fly-frames of printing-presses..... (Extension).....	Nov. 1, 1871
4,400	Hoe, Richard M., and Stephen D. Tucker, New York, N. Y. Printing-press. (Reissue).....	May 30, 1871
4,429	Hoe, Richard M., assignor of part interest to Robert and Peter S. Hoe, Stephen D. Tucker, William L. Colby, and Robert Hoe, jr., New York, N. Y. Feeding paper to printing-presses..... (Reissue).....	June 20, 1871
113,667	Hoelinger, Joseph, Carrollton, Mo. Fire-escape.....	April 4, 1871
113,167	Hoeller, Charles, assignor to self and Henry S. Hoeller, Cincinnati, Ohio. Machine for forming pipe-elbows.....	Mar. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Hoen, August. (<i>See</i> Adt, John B., assignor.)	
119,358	Hoes, Edward V. B., Green Bay, Wis. Toy-projectile	Sept. 26, 1871
111,345	Hoffman, Austin D., assignor to James H. Small, Chicago, Ill. Registering ticket-punch	Jan. 31, 1871
4,246	Hoffman, Austin D., assignor through mesne assignments to James H. Small, Chicago, Ill. Registering ticket-punch. (Reissue)	Jan. 31, 1871
117,777	Hoffman, James, Belvidere N. J. Boot-stretcher	Aug. 8, 1871
117,778	Hoffman, Joseph, assignor of one-half interest to S. H. Sweetland, Tewksbury, N. J. Hoisting-apparatus	Aug. 8, 1871
	Hoffman, Samuel W. (<i>See</i> Crane, Seymour, assignor.)	
121,873	Hoffmann, Carl, New York, N. Y. Implement for handling boxes and packages.	Dec. 12, 1871
115,734	Hoffmann, Frederick E., Prussia. Brick-kiln	June 6, 1871
113,770	Hoffmann, Michael, assignor to Ludwig Kolbl, Bavaria. Grain-hulling machine.	April 18, 1871
120,971	Hoffmeister, Louis Christian, jr., Philadelphia, Pa. Window-shade fixture	Nov. 14, 1871
120,437	Hoffstadt, Adolphus, New York, N. Y. Neck-tie	Oct. 31, 1871
118,242	Hoffstadt, Louis, Philadelphia, Pa. Dentists' articulator	Aug. 22, 1871
114,819	Hofmann, Jacob, Chicago, Ill. Adjustable bolster for bedsteads	May 16, 1871
114,509	Hogan, Patrick J., and Adam Snowden, Cincinnati, Ohio. Meat-saw	May 2, 1871
	Hogarth, Frederick J., and George H. Goltry. (<i>See</i> Goltry & Hogarth.)	
115,612	Hoge, William, and Joseph R. Peck, Washington, Pa. Enameled flexible metallic plate for photographers and others	June 6, 1871
114,508	Hogel, Hascal A., assignor to Effingham H. Nichols, New York, N. Y. Apparatus for treating animal matter for fertilizers.	May 2, 1871
4,704	Hogg, James, assignor to Fleming Brothers, Philadelphia, Pa. Stocking. (Design)	Mar. 14, 1871
117,074	Hoggatt, Nathaniel, Madison Parish, La. Cotton-gin feeder	July 18, 1871
122,170	Hoggson, Samuel, assignor to self, William A. Peck, jr., and Whiting S. Sanford, New Haven, Conn. Process of printing on enameled or vitreous surfaces	Dec. 26, 1871
111,661	Hogle, Sidney S., Berea, Ohio. Harrow	Mar. 16, 1871
119,765	Hohenstein, George C., and Charles T. Glaeser, Cincinnati, Ohio. Crushing and hulling attachment to grinding-mills.	Jan. 17, 1871
115,206	Hohorst, Friedrich, New York, N. Y. Sling for packages	Oct. 10, 1871
	Holbrook, Augustus L., Fremont, Nebr. Metallic heel for boots and shoes.	May 23, 1871
	Holbrook, Benjamin, administrator. (<i>See</i> Stone, Nathaniel F.)	
	Holbrook, Franklin F., et al. (<i>See</i> Small, Matthews & Holbrook.)	
117,075	Holbrook, Jonathan, Sherburne, Mass. Cider-press	July 18, 1871
	Same. (<i>See</i> Safford, Mark, assignor.)	
	Holcomb, Frederick A., and Samuel B. Jenks. (<i>See</i> Jenks & Holcomb.)	
114,560	Holcroft, Henry, Media, Pa. Curtain-cord retainer	May 9, 1871
	Holcroft, Henry, et al. (<i>See</i> Stead, Holcroft & Pearson.)	
114,682	Holden, James John, England. Apparatus for charging and discharging gas-retorts	May 9, 1871
	Holden, Stoughton B. and Luther L. (<i>See</i> Rogers, Edwin F., assignor.)	
119,848	Holding, Joseph, and James Eccles, Great Britain. Warp-shedding mechanism for looms	Oct. 10, 1871
112,597	Holdredge, Artemas, West Burlington, N. Y., and Benjamin F. and Henry H. Harrington, New Berlin, N. Y. Cheese-loop	Mar. 14, 1871
4,734	Holdsworth, George, assignor to William and I. Sloane, England. Carpet-pattern	Mar. 28, 1871
112,809	Holdsworth, Samuel, Maspeh, N. Y. Sand-screen	Mar. 21, 1871
111,540	Hollabaugh, Samuel, and Thomas W. Letts, Mount Union, Pa. Scaffold	Feb. 7, 1871
	Holland, Charles, et al. (<i>See</i> Frear, George A., assignor.) (Reissue.)	
118,367	Holland, John, Cincinnati, Ohio. Pen-holder	Aug. 22, 1871
118,939	Holland, Mary A., Passaic, N. J. Burglar-alarm	Sept. 12, 1871
118,940	Same. Burglar-alarm for windows	Sept. 12, 1871
121,103	Holland, William H., Boston, Mass. Piston	Nov. 21, 1871
121,782	Hollen, Stephen William, Cincinnati, Ohio. Time-lock	Dec. 12, 1871
110,656	Hollen, William H. H., Fostoria, Pa. Knitting-machine	Jan. 3, 1871
120,278	Hollenbaugh, William, New Germantown, Pa. Blast-attachment for lime-kilns	Oct. 24, 1871
	Hollenbeck, George, and William A. Sharp. (<i>See</i> Sharp & Hollenbeck.)	
121,368	Holley, Minard Y., Washington, D. C. Telegraph-insulator	Nov. 28, 1871
111,541	Hollihan, Dennis W., San Francisco, Cal. Shoe for thrashers. (Antedated Jan. 26, 1871)	Feb. 7, 1871
113,884	Hollinger, Jacob, Millersburgh, Ohio. Carriage-coupling	April 18, 1871
	Hollingsworth, Lyman, and Charles McBurney. (<i>See</i> McBurney & Hollingsworth.)	
	Hollingsworth, Robert J., and Louis McMurray. (<i>See</i> McMurray & Hollingsworth.)	
122,017	Hollis, Berry, Randolph, Ill. Hask-splitter	Dec. 19, 1871
	Hollis, Charles D., and D. S. Alvord. (<i>See</i> Alvord & Hollis.)	
114,430	Hollister, John F., Plano, Ill. Construction of bedsteads	May 2, 1871
	Hollister, Warren. (<i>See</i> Sinclair, James A., assignor.)	
	Hollow Axle Manufacturing Company. (<i>See</i> Lewis, William A., assignor.) (Seven cases.)	
	Same. (<i>See</i> Lewis, William A., assignor.) (Reissue.)	
116,709	Holloway, Ephraim S., Columbiana, Ohio. Pressing and stuffing machine.	July 4, 1871
	Holloway, John, et al. (<i>See</i> Edwards, Wesley, assignor.)	
113,516	Holly, Birdsill, Lockport, N. Y. Filter	April 11, 1871
113,517	Same. Regulating and safety valve	April 11, 1871
113,668	Same. Surface-condenser	April 11, 1871
114,010	Same. Variable cut-off for engines for water-works	April 25, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,142	Holly, Birdsill, Lockport, N. Y. Combined heater and condenser.....	April 25, 1871
114,683	Same..... Pressure-regulator for water-works.....	May 9, 1871
4,373	Same..... System of water-supply for cities..... (Reissue).....	May 9, 1871
4,396	Same..... Automatic regulating-valve..... (Reissue).....	May 23, 1871
	Holly, James H. (See Knapp & Robertson, assignors.)	
	Holly, James H., <i>et al.</i> (See Robertson, John F., assignor.)	
112,341	Holly, Solomon T., assignor to John P. Manny, Rockford, Ill. Harvester-rake.....	Mar. 7, 1871
118,130	Holman, Miron S., and Cyrus S. Farrar, Armada, Mich. Horse hay-rake.....	Aug. 15, 1871
117,631	Holman, Stephen, England. Securing lids to gas-retorts.....	Aug. 1, 1871
	Holmead, J. E. F. (See Peyton, Joseph L., assignor.)	
121,619	Holmes, Albert N., Tyrone, Mich. Self-operating gate.....	Dec. 5, 1871
118,941	Holmes, Alexander M., Morrisville, N. Y. Signal-light.....	Sept. 12, 1871
	Holmes, Booth & Hayden. (See Hayden, Hiram W., assignor)..... (Six cases.)	
119,610	Holmes, Chester D., Boston, Mass. Earth-closet. (Antedated Sept. 23, 1871).....	Oct. 3, 1871
121,620	Holmes, Edwin, Brooklyn, N. Y. Electric indicator for elevators.....	Dec. 5, 1871
120,744	Holmes, Edwin, Brooklyn, N. Y., and Henry C. Roome, Jersey City, N. J. Circuit-closer for electrical burglar-alarms and signals.....	Nov. 7, 1871
120,874	Same..... Electric lining for safes.....	Nov. 14, 1871
120,875	Same..... Electro-magnetic burglar-proof curtain.....	Nov. 14, 1871
	Holmes, Farley, <i>et al.</i> (See Madden, De Marcus, assignor.)	
111,269	Holmes, Francis March, Boston, Mass. Folding-chair.....	Jan. 24, 1871
111,455	Same..... same.....	Jan. 31, 1871
120,040	Same..... same.....	Feb. 21, 1871
120,041	Same..... same.....	Feb. 21, 1871
4,280	Same..... same..... (Reissue).....	Feb. 28, 1871
	Holmes, Francis V. (See Robbins, Joseph A., assignor.)	
114,820	Holmes, H. S., and D. Williams, assignors to David Williams, South Boston, Mass. Combined punch, awl, and knife.....	May 16, 1871
116,444	Holmes, Henry T., and Wallace H. Priest, Little Falls, N. Y. Cooking-stove.....	June 27, 1871
122,171	Holmes, Isaac V., New York, N. Y. Metallic lathing. (Antedated Dec. 9, 1871).....	Dec. 26, 1871
	Holmes, James G., Charleston, S. C. Chair for invalids..... (Extension).....	June 1, 1871
121,783	Holmes, John, Saint Clair, Pa. Miners' squib.....	Dec. 12, 1871
113,518	Holmes, John, and James C. H. Slack, England. Bale-tie.....	April 11, 1871
119,766	Holmes, Catharine E., Cambridgeport, Mass. Railway-car safety-apparatus.....	Oct. 10, 1871
113,519	Holmes, Levi, Greenpoint, N. Y. Finger-guard.....	April 11, 1871
	Holmes, R. E., <i>et al.</i> (See Coe, Daniel S., assignor.)	
113,432	Holmes, Sumner, North Brookfield, and Joseph F. Sargent, Melrose, Mass. Machine for forming heel-rands.....	April 4, 1871
118,243	Holmes, Thomas, Williamsburgh, N. Y. Cake-mixer.....	Aug. 22, 1871
	Holmes, Thomas, and John W. Barton. (See Barton & Holmes.)	
	Holmes, Thomas W., <i>et al.</i> (See Gubbins, Richard R., assignor.)	
120,438	Holsey, Julius Hopkins, Butler, Ga. Blasting-plug.....	Oct. 31, 1871
115,056	Holske, William F., assignor to self and A. E. Beach, New York, N. Y. Construction of hollow vessels.....	May 23, 1871
116,310	Holst, Moritz, Memphis, Tenn. Medical compound or bitters.....	June 27, 1871
114,821	Holsten, Carl Gustaf, Sweden. Transient bolt for vehicles.....	May 16, 1871
120,645	Holt, Chauncey, Jersey City, N. J. Children's carriage.....	Nov. 7, 1871
111,844	Holt, Horace, and William W. Secombe, assignors to Secombe Manufacturing Company, New York, N. Y. Hand-stamp.....	Feb. 14, 1871
4,473	Holt, John F., assignor through mesne assignments to the Boston Belting Company, Providence, R. I. Roller for clothes-wringers, &c..... (Reissue).....	July 18, 1871
	Holt, Joseph, and John Rigby. (See Rigby & Holt.)	
119,611	Holtz, Dennis, Tiffin, Ohio. Bob-sled.....	Oct. 3, 1871
	Holtzclaw, Frank, <i>et al.</i> (See Draper, Henry V. P., assignor.)	
115,474	Holtzman, George, Baltimore, Md. Oyster-shucker.....	May 30, 1871
	Homans, F. W., <i>et al.</i> (See Manning, John J., assignor.)	
121,621	Hood, Cornelius, Seneca Falls, N. Y. Rotary harrow.....	Dec. 5, 1871
116,593	Hood, Freeman W., Boston, Mass. Revolving fire-arm.....	July 4, 1871
111,346	Hood, Joseph R., Wetlowee, Ala. Cotton-chopper.....	Jan. 31, 1871
121,287	Hood, Wendell P., Winona, Minn. School desk and seat. (Antedated Nov. 11, 1871).....	Nov. 28, 1871
	Hool, John R., & Son. (See Siebert & Lilley, assignors.)	
	Hoon, Joseph S., and Joseph S. Shaueman. (See Shaueman & Hoon.)	
120,068	Hooper, Cyrus Augustus, Lewiston, Me. Picker-staff check for looms.....	Oct. 17, 1871
112,342	Hooper, Henry O., Diamond Springs, Cal. Door-clamp.....	Mar. 7, 1871
118,131	Hooper, James Edwin, Boston, Mass. Tool for packing valves.....	Aug. 15, 1871
117,419	Hooper, Robert, Baltimore, Md. Canal-boat.....	July 25, 1871
	Hooper, Sherman D., and Washburn Race. (See Race & Hooper.)	
112,918	Hooper, William, Ticonderoga, N. Y. Ore-separator.....	Mar. 21, 1871
112,919	Same..... same.....	Mar. 21, 1871
117,884	Hooton, Francis C., West Chester, Pa. Preserving fruits and vegetables.....	Aug. 8, 1871
	Hooton, F. C., <i>et al.</i> (See Bullard O. Flagg, assignor.)	
	Hoover, William. (See Gibson & De Haas.)	
	Hope, Jonathan, <i>et al.</i> (See Minter, James, assignor)..... (Reissue.)	
117,632	Hopf, Frederick, Chicago, Ill. Desk and bed combined.....	Aug. 1, 1871
118,534	Hopkin, George E., Philadelphia, Pa. Cooking-stove.....	Aug. 29, 1871
	Hopkins, Andrew B., <i>et al.</i> (See Draper, Henry V. P., assignor.)	
116,710	Hopkins, Charles A., Charles H. Reid, George N. Raymond, and John S. Mecker, Danbury, Conn. Hat.....	Jan. 4, 1871
	Hopkins, Clark R., and Obadiah S. Smith. (See Smith & Hopkins)	
4,671	Hopkins, George E., and William B. Shedd, Boston, Mass. Machine for preparing sisal-grass and like substances..... (Reissue).....	Dec. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,622	Hopkins, George M., assignor through mesne assignments to Henry G. Thompson, Albion, N. Y. Electro-magnetic sewing-machine.....	Dec. 5, 1871
121,784	Hopkins, Harvey L., Eaton, N. Y. Harvester.....	Dec. 12, 1871
115,319	Hopkins, I. M. (See Dutemple, William R., assignor.)	
111,935	Hopkins, James, Akron, Ohio. Animal-poke.....	May 30, 1871
119,030	Hopkins, James H., assignor to self and William Carrollton, Newark, N. J. Hat-sizing machine.....	Feb. 21, 1871
113,053	Hopkins, Joseph W., assignor to self, Albert G. Bearup, and Patrick Carraher, New York, N. Y. Valve for steam-pumps, &c.....	Sept. 19, 1871
115,961	Hopkins, Samuel S., assignor to the Hopkins & Allen Manufacturing Company, Norwich, Conn. Revolving fire-arm.....	Mar. 28, 1871
110,657	Hopkins, Seth, Napoleon, Ohio. Chimney.....	June 13, 1871
121,719	Hopkins, William P., Lawrence, Mass. Caliper.....	Jan. 3, 1871
111,062	Hopkinson, Emerson B., and David Shankland. (See Shankland & Hopkinson.)	
116,311	Hopper, Thomas C., Philadelphia, Pa. Apparatus for mixing air and gas.....	Dec. 12, 1871
110,594	Hopping, Eugene C., and Eugene A. Ely, Madison, N. J. Combined seed-drill, manurer, and potato-digger.....	Jan. 17, 1871
116,445	Hopson, George, Bridgeport, Conn. Manufacture of spring-heads.....	June 27, 1871
119,359	Hopson, O. L., Waterford, Conn., and H. P. Brooks, Wolcottville, Conn., assignors to the Excelsior Needle Company. Needle for sewing-machines.....	July 4, 1871
112,810	Hopwood, William C., Fillmore, Ind. Water-gate.....	June 27, 1871
	Horack, Carl L., Hastings, Minn. Car-coupling.....	Sept. 26, 1871
	Horn, Henry, assignor to John O. Fairbairn, Milwaukee, Wis. Cord-guide for sewing-machines.....	Mar. 21, 1871
118,132	Horner Brothers. (See Crabtree, Jonathan, assignor... (Two cases.) (Design.)	
114,561	Horner, William K., Ypsilanti, Mich. Hydrocarbon-torch.....	Aug. 15, 1871
118,014	Hornig, Julius L., Chicago, Ill. Propulsion of canal-boats.....	May 9, 1871
111,456	Horsey, Harvey C., Rome, Iowa. Washing-machine.....	Aug. 15, 1871
	Horstmann, William J., Philadelphia, Pa. Fastening for epaulettes.....	Feb. 7, 1871
112,811	Horton, A., and Jonathan Moore. (See Moore & Horton.) (Eight cases.) (Design.)	
119,360	Horton, Benjamin F., Ithaca, N. Y. Thill-coupling.....	Mar. 21, 1871
115,320	Horton, John M., assignor to self and Hiram W. Foote, Milwaukee, Wis. Device for locking nuts.....	Sept. 26, 1871
11,936	Horton, Marcus L., Windsor, Vt. Wash-boiler.....	May 30, 1871
119,767	Horton, Peter D., and Ezra T. Bryan, Marengo Township, Mich. Fly-trap.....	Feb. 21, 1871
121,874	Horton, William P., assignor to self and John B. Smith, Milwaukee, Wis. Lock-nut for railway-joints.....	Oct. 10, 1871
113,825	Hossler, Hiram B., New Berlin, Ohio. Horse-power fastening.....	Dec. 12, 1871
111,745	Hotchkiss, Albert G., Wolcottville, Conn. Machine for reducing or pointing wire.....	April 18, 1871
112,042	Hotchkiss, Asahel A., Sharon, Conn. Animal-trap.....	Feb. 14, 1871
112,144	Hotchkiss, Bennet, New Haven, Conn. Window-sash lock.....	Feb. 21, 1871
115,207	Hotchkiss, B. B., New York, N. Y. Projectile for ordnance.....	Feb. 23, 1871
113,721	Hotchkiss, Burritt M., Naugatuck, Conn., and George M. Allerton, New York, N. Y. Vulcanizing-apparatus.....	May 23, 1871
4,859	Hotchkiss, Charles A., Bridgeport, Conn. Mouse-trap.....	Sept. 5, 1871
116,958	Hotchkiss, Edward H. (See Cook, Thomas K., assignor.)..... (Design.)	
112,343	Hotchkiss, Frederick E., Gloversville, N. Y. Palm and back-piece of gloves. (Design.).....	May 2, 1871
120,197	Hothersall, James, and Joseph Banks, New York, N. Y. Carpet-beater.....	July 11, 1871
110,916	Houchin, Thomas W., Morrisania, N. Y. Taper-holder.....	Mar. 7, 1871
121,369	Same..... Verrin-extermiator.....	Oct. 24, 1871
112,458	Houcke, Louis, Springfield, Ohio. Coffee-roaster.....	Jan. 10, 1871
111,845	Hough, John O., De Witt County, Ill. Sawing-machine.....	Nov. 28, 1871
117,420	Hough, Walter A., South Butler, N. Y. Feed-bag for horses.....	Mar. 7, 1871
	Hough, William S., Johnstown, Pa. Spike-extractor.....	Feb. 21, 1871
	Same..... same.....	July 25, 1871
111,542	Houghton, Byron K. (See Nelson, James H., assignor.)	
5,027	Houghton, Charles, Roxbury, Mass. Automatic steam water-elevator.....	Feb. 14, 1871
5,044	Houghton, Stillman, Worcester, Mass. Display-card..... (Design.)	June 20, 1871
111,937	Same..... Garter and armet card..... (Design.)	June 27, 1871
4,374	Haupt, John, Springtown, Pa. Steam-engine.....	Feb. 21, 1871
115,208	Same..... same..... (Reissue).....	May 9, 1871
116,312	Same..... same.....	May 23, 1871
120,439	Same..... same.....	June 27, 1871
112,344	House, Garrett Z., New York, N. Y. Cooking-stove.....	Oct. 31, 1871
112,345	House, Henry A., Bridgeport, Conn. Metallic garter.....	Mar. 7, 1871
112,346	Same..... Bobbin-winder.....	Mar. 7, 1871
113,054	Same..... Method of knitting stockings, &c.....	Mar. 7, 1871
114,294	Same..... Ventilator for hats.....	Mar. 23, 1871
112,459	House, James A., and Henry A., assignors to Wheeler & Wilson Manufacturing Company, New York, N. Y. Sewing-machine.....	May 2, 1871
112,460	House, Mark W., Cleveland, Ohio. Shade-holder for lamps.....	Mar. 7, 1871
121,521	House, Mark W., assignor to the Cleveland Non-Explosive Lamp Company, Cleveland, Ohio. Lamp-chimney.....	Mar. 7, 1871
	Same..... Lamp.....	Dec. 5, 1871
120,876	Houston, William H., Peabody, Mass. Machine for composing and distributing type..... (Extension).....	Mar. 23, 1871
	Same..... Machine for composing and distributing type..... (Disclaimer).....	Mar. 23, 1871
	Houston, Winfield S., Mansfield, Ohio. Hog-ringing device.....	Nov. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,122	Hovenden, Edwin, Bushnell, Ill. Feed-trough guard.	Jan. 24, 1871
112,708	Hovey, Asa E., and David Kerr. (See Kerr & Hovey) (Two cases.)	Mar. 14, 1871
4,306	Hovey, Francis, assignor to self and John Albert Brown, Ipswich, Mass. Swing-Hovey, Francis, assignor to E. W. Frost, New York, N. Y. Copying-press. (Re-issue)	Mar. 21, 1871
112,812	Hovey, Philo B., New London, Conn. Sash-holder	Mar. 21, 1871
4,904	Hovey, Samuel D., Brooklyn, N. Y. Rubber-eraser (Design) ..	May 16, 1871
116,446	Hovis, John T., Clintonville, Pa. Plow-attachment for cutting stubble	June 27, 1871
116,959	How, George C., Haverhill, Mass. Shoe	July 11, 1871
113,168	How, James W. F., Douglas County, Ore. Animal-trap	Mar. 28, 1871
117,288	Howard, Alonzo J. F., Milford, Mass. Boot-crimper rub-stick	July 25, 1871
111,938	Howard, Charles, Warren, Ohio. Roofing-tile	Feb. 21, 1871
120,440	Howard, Charles A., Pontiac, Mich. Horse hay-fork	Oct. 31, 1871
	Howard, E., & Co. (See Goodell, Bardwell A., assignor) (Design.)	
113,669	Howard, Elijah Leavitt, assignor to George Augustus Whiting, Malden, Mass. Ruffle-guide and band-holder for sewing-machines	April 11, 1871
116,056	Same..... Band and edging guide sewing-machine	June 20, 1871
119,930	Same..... Hingham, Mass. Mechanism for operating sewing-machines	Oct. 17, 1871
120,817	Same..... Malden, Mass. Ruffling-device for sewing-machines	Nov. 14, 1871
116,960	Howard, Eugene, Milford, Mass. Child's nursery-gate	July 11, 1871
112,145	Howard, George C., Philadelphia, Pa. Belt-gearing	Feb. 28, 1871
114,562	Howard, Hiland, assignor to self, James Fowks, and George Howard, Leeds, N. Y. Fringe-twister	May 9, 1871
112,461	Howard, James, and Edward T. Bousfield, England. Horse hay-rake	Mar. 7, 1871
113,298	Same..... Tubular steam-boiler	April 4, 1871
117,076	Howard, James Leland, Hartford, Conn. Railroad-car ventilator	July 18, 1871
117,289	Same..... same	July 25, 1871
119,147	Same..... Urinal for railroad-cars	Sept. 19, 1871
118,015	Howard, John R., Boston, Mass. Blacking-brush	Aug. 15, 1871
111,746	Howard, Leonard D., Spruce Hill, Pa. Machine for cutting staves	Jan. 31, 1871
117,421	Howard, Oliver B., Westbrook, Me. Razor-strap	July 25, 1871
121,586	Howard, Oscar S., Bangor, Me. Piston-head for steam-engines	Nov. 7, 1871
118,942	Howard, Warren A., Dugway, N. Y. Door-fastener	Sept. 12, 1871
117,779	Howard, William H., Philadelphia, Pa. Let-off mechanism	Aug. 8, 1871
113,886	Howard, William T., Baltimore, Md. Broiler	April 18, 1871
112,347	Howarth, John, Salem, Mass. Apparatus for evaporating and concentrating liquids	Mar. 7, 1871
112,348	Same..... Apparatus for evaporating and concentrating liquids	Mar. 7, 1871
114,295	Same..... Apparatus for evaporating liquids	May 2, 1871
116,711	Same..... Apparatus for evaporating saline and other liquids	July 4, 1871
117,290	Same..... Apparatus for evaporating, concentrating, and super-heating salt-brine	July 25, 1871
	Howarth, John, and John H. Mills. (See Mills & Howarth.)	
110,762	Howe, Archelaus M., Worcester, Mass. Device for cutting soles for boots and shoes	Jan. 3, 1871
122,018	Howe, George A., Niles, Mich. Abrasive-paper holder. (Antedated Dec. 9, 1871).	Dec. 19, 1871
112,709	Howe, Henry, Council Bluffs, Iowa. Truss	Mar. 14, 1871
116,595	Howe, Henry R., Hartwick, N. Y. Car-coupling	July 4, 1871
112,710	Howe, Henry S., Rutland, Vt. Confectioners' mold	Mar. 14, 1871
117,885	Howe, Irving A., Boston, Mass. Drawers	Aug. 8, 1871
120,069	Howe, James H., Utica, N. Y. Tobacco-dressing machine	Oct. 17, 1871
117,886	Howe, John M., Rochester, N. Y. Knitting-machine	Aug. 8, 1871
4,315	Howe, Oziel A., assignor to the Howe Horseshoe and Machine Company, Jersey City, N. J. Machine for making horseshoes. (Reissue) ..	Mar. 28, 1871
116,057	Howe, Patrick, Boston, Mass. Cloth-pressing machine	June 20, 1871
119,708	Same..... same	Oct. 10, 1871
121,720	Same..... Machine for pressing cloth	Dec. 12, 1871
110,917	Howe, Zadok, Lowell, Mich. Broom-holder	Jan. 10, 1871
	Howell & Brothers. (See Wilson, William, assignor.)	
111,457	Howell, Amyntas J., and James Murphy, Spruce Hill, Pa. Machine for cutting staves	Jan. 31, 1871
117,887	Same..... Stave-jointer	Aug. 8, 1871
122,019	Howell, De Witt C., Goshen, N. Y. Sectional steam-generator	Dec. 19, 1871
121,104	Howell, George W., Covington, Ky. Stove-pipe elbow	Nov. 21, 1871
113,670	Howell, Hamilton, Salem, Ohio. Machine for sharpening horseshoe-calks	April 11, 1871
121,052	Howell, John Adams, United States Navy. Propulsion of marine torpedoes	Nov. 21, 1871
120,877	Howell, Nathan S., Tualatin, Ore. Animal-trap	Nov. 14, 1871
113,887	Howell, Thomas, Morgantown, W. Va. Hand seed-sower	April 18, 1871
	Hoves, Lewis A. (See Prusha & Wales, assignors.)	
	Hoves, Simeon, and Henry Montgomery. (See Montgomery & Hoves.)	
113,433	Howland, Edmund S., Batavia, Ill. Grinding-plate	April 4, 1871
	Howland, William H. (See Norman, John, assignor.)	
113,297	Howland, William M., Topsham, Me. Wood-pulp machine	April 4, 1871
119,612	Howland, William M. and George L., Topsham, Me. Derrick	Oct. 3, 1871
	Howson, Richard, et al. (See Jones, Howson & Giers.)	
114,822	Hoxie, Horace S., Raisin Centre, Mich. Plow-colter	May 16, 1871
	Hoxworth, W. J. (See La Rue, Silas H., assignor.)	
116,058	Hoxworth, William Jenkins, and Silas Hoffman La Rue, Allentown, Pa. Cooking-stove	June 20, 1871
	Hoyer, I. Wellington. (See White, William H., assignor.)	
	Hoyt, Asa. (See Hallock, Charles C., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,057	Hoyt, Benaiah C., Fort Atkinson, Wis. Riding-plow	May 23, 1871
117,780	Hoyt, Charles N., Providence, R. I. Combination-apparatus for games.....	Aug. 8, 1871
121,623	Hoyt, George A. (See McGregor, Frazee B., assignor.)	
121,623	Hoyt, Isaac N., Wayland, Mich. Wagon body and rack.....	Dec. 5, 1871
112,598	Hoyt, Jonathan J., Chelmsford, Mass., and John E. Crane, Lowell, Mass., assignors to Jonathan J. Hoyt and the Lowell Oil-Cup Company. Construction of lamps.....	Mar. 14, 1871
4,886	Hubbard, Calvin L., assignor to the New Haven Steam Heating Company, New Haven, Conn. Screen for a steam-heater..... (Design)	May 9, 1871
	Hubbard, Charles W., and George Palmer. (See Palmer & Hubbard.)	
118,368	Hubbard, David B., Wheeling, W. Va. Sofa-bedstead	Aug. 22, 1871
111,939	Hubbard, Eber, Seneca Falls, N. Y. Snow-shovel tip.....	Feb. 21, 1871
111,210	Hubbard, Edwin C., Green Bay, Wis. Brick-machine.....	Feb. 7, 1871
120,441	Hubbard, George M., assignor to the Parker & Whipple Company, New Haven, Conn. Fastener for meeting-rails of sashes	Oct. 31, 1871
4,814	Hubbard, George R., assignor to Bradley & Hubbard, New York, N. Y. Match-safe..... (Design)	April 18, 1871
115,058	Hubbard, Isaac G., Nokomis, Ill. Motor-machine	May 23, 1871
117,077	Hubbard, Lucius, Ottawa, Ohio. Iron rim for wagon-wheels.....	July 13, 1871
121,370	Hubbard, Maria C., Troy, N. Y. Wash-boiler.....	Nov. 28, 1871
121,785	Hubbard, Thomas R., and William L., Brooklyn, N. Y. Sash-holder	Dec. 12, 1871
116,712	Hubbard, William C., assignor to self, Jerome J. Robbins, and William W. Carner, Hubbardston, Mich. Spring bed-bottom.....	July 4, 1871
117,781	Hubbard, William Penn., assignor to self and James H. Fegans, Farmland, Ind. Water-gate	Aug. 8, 1871
110,918	Hubbell, Algernon S., Norwich, Conn. Joint for frames of folding-umbrellas.....	Jan. 10, 1871
115,475	Hubbell, William Wheeler, Philadelphia, Pa. Pavement.....	May 30, 1871
120,646	Huber, Berthold, Williamsburgh, N. Y. Printing-press	Nov. 7, 1871
	Huber, Joseph. (See Perrault, Louis A., assignor.)	
121,171	Huckins, Isaac S., Wenona, Mich. Show-case for watches.....	Nov. 21, 1871
111,123	Huddle, Lewis and Jacob K., Tiffin, Ohio. Railway-car coupling	Jan. 24, 1871
112,920	Huddleston, Martha, Jackson, Tenn. Medical compound or salve.....	Mar. 21, 1871
111,124	Hudgin, Robert Henry, Fairfield, Canada. Gate.....	Jan. 24, 1871
111,543	Hudgin, Wescom, Athens, Ga. Wheel and axle for railway-cars.....	Feb. 7, 1871
113,169	Hudnutt, John T., Reaville, N. J., and Holloway W. Mathews, assignors to J. W. Priestly & Co., Frenchtown, N. J. Land-roller.....	Mar. 23, 1871
122,172	Hudnut, Theodore, Terre Haute, Ind. Hominy-mill.....	Dec. 26, 1871
116,191	Hudson, Charles H., New York, N. Y. Self-propelling sleigh. (Antedated June 7, 1871)	June 26, 1871
116,313	Same..... Mode of propelling sleighs. (Antedated June 15, 1871)	June 27, 1871
117,291	Same..... Clothes-wringer. (Antedated July 14, 1871)	July 25, 1871
110,851	Hudson, Edward J., Golconda, Ill. Fire-escape.....	Jan. 10, 1871
120,043	Hudson, Orvis D., Wauwun, Wis. Hydrostatic scale.....	Feb. 21, 1871
121,875	Hudson, Sylvester M., Saint Louis, Mo. Wrecking-frog for railways	Dec. 12, 1871
114,823	Hudson, Thomas, Troy, N. Y. Presser-foot for sewing-machines.....	May 16, 1871
4,765	Hudson, Thomas S., East Cambridge, Mass. Inkstand..... (Design)	Mar. 14, 1871
112,589	Huegler, Anthony, Sullivan, Mo. Securing wheel-tires.....	Mar. 14, 1871
	Huey, Samuel B., et al. (See Wilson, Joseph B., assignor.)..... (Two cases.)	
120,158	Huey, William, Galena, Md. Step-ladder.....	Oct. 24, 1871
113,888	Huff, Chauncey F. H., New York, N. Y. Water-wheel.....	April 18, 1871
114,684	Same..... Sofa-bedstead	May 9, 1871
	Huffington, John W. (See Buckman, Alexander, assignor.)	
	Huffington, John W., and Alexander Buckman. (See Buckman & Huffington.) (Design)	
117,633	Huffman, A. Ogden, Springfield, Ohio. School-desk	Aug. 1, 1871
112,711	Huffman, David, Luray, Va. Saw-gummer.....	Mar. 14, 1871
	Huffsey, Henry, and William H. Keppel. (See Keppel & Huffsey.)	
121,105	Hughes, Elisha, assignor to G. Miller Aylesworth, Gowie, Canada. Shingle-machine.....	Nov. 21, 1871
	Hughes, Frank, et al. (See Boon & Mills, assignors.)	
113,170	Hughes, John, New Berne, N. C. Cotton-picker.....	Mar. 28, 1871
113,671	Same..... Cotton-planter	April 11, 1871
115,209	Same..... Process for utilizing immature cotton-bolls.....	May 30, 1871
112,712	Hughes, John A., assignor to John A. Hughes & Co., Somerville, Mass. Show-case.....	Mar. 14, 1871
116,447	Hughes, John B., Terre Haute, Ind. Tile-machine.....	June 27, 1871
116,448	Same..... same.....	June 27, 1871
121,624	Same..... Tile for roofing.....	Dec. 5, 1871
111,940	Hughes, Joseph M., and Andrew J. Mapes, Independence, Mo. Excavating-machine.....	Feb. 21, 1871
114,685	Hughes, Robert, Dangerfield, Tex. Rotary engine.....	May 9, 1871
120,972	Hughes, Samuel, assignor to self and James J. Grace, Chester, S. C. Ore-crushing machine. (Antedated Nov. 4, 1871)	Nov. 14, 1871
114,143	Hughes, Seymour, Hudson, N. Y. Self-heating pocket-flask.....	April 25, 1871
115,735	Hughes, William E., Ayloner, Canada. Pruning-shears	June 6, 1871
112,247	Hughes, William M., San Francisco, Cal. Anchor.....	Feb. 23, 1871
111,063	Hughes, William W., Philadelphia, Pa. Beam or girder for fire-proof structures.....	Jan. 17, 1871
122,020	Hughes, Joseph H., and Absalom, Wautoma, Wis. Cow-bell strap	Dec. 19, 1871
114,942	Huginin, Robert B., New York, N. Y. Sash-holder.....	May 16, 1871
4,638	Huginin, Robert B., assignor to Albert H. Spencer, Cleveland, Ohio. Clothes-wringer..... (Reissue)	Nov. 21, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,680	Huginin, Robert B., assignor to Albert H. Spencer, Cleveland, Ohio. Roller and fastening for clothes-wringers. (Reissue)	Dec. 26, 1871
	Hugus, Paul, <i>et al.</i> (See Gillett, Webster, assignor.)	
170,384	Huie, James M., and Elisha Card, San Francisco, Cal. Gang-plow	Oct. 31, 1871
117,634	Hulbert, Edwin J., and Aime N. N. Aubin, assignors through mense assignments to the American Peat-Fuel Company, Rutland, Conn. Peat-elevator ..	Aug. 1, 1871
120,522	Hulbert, Edwin J., and Aime Nicholas N. Aubin, Portland, Conn. Hoisting-bucket	Oct. 31, 1871
122,173	Same.....Treatment of peat for fuel	Dec. 26, 1871
122,252	Hulbert, Francis R., Grand Rapids, Mich. Steam-boiler tube-bushing	Dec. 26, 1871
115,321	Hulbert, Jerome B., Hermon, N. Y. Self loading and dumping cart	May 30, 1871
116,192	Hulbert, Lester T., Painesville, Ohio, and Albert P. Teachout, Madison, Ohio. Corn-sheller	June 20, 1871
	Hulbert, Thomas W., and Henry Pudder. (See Pudder & Hulbert.)	
120,973	Hull, Aaron J., Sterling, Ill. Pump	Nov. 14, 1871
4,521	Hull, Daniel H., assignor to self and J. B. Savage, Plantsville, Conn. Boiler and washing-machine. (Reissue)	Aug. 22, 1871
	Hull, Henry. (See Garvin, Benjamin, assignor.)	
119,361	Hull, Henry H., Bergen, N. Y. Clod breaking and pulverizing machine	Sept. 26, 1871
119,518	Hull, Jerome J., and Joseph Kaufman, Brooklyn, N. Y. Lantern	Oct. 3, 1871
111,544	Hull, John W., and Albert G. Stiffler, Alquina, Ind. Clover-harvester	Feb. 7, 1871
112,713	Hull, Lemuel L., Oskaloosa, Iowa. Pad for horse-collars	Mar. 14, 1871
118,722	Hull, Liverus, Charlestown, Mass. Connecting joint and cock of gas-brackets ..	Sept. 5, 1871
112,248	Hull, Thomas, and Nicholas Thomas, Chicago, Ill. Bolt-heading machine	Feb. 28, 1871
	Hulse, William T., and John Marvin. (See Marvin & Hulse.)	
	Hulskamp, G. Henry, New York, N. Y. Metallic bridge for piano-fortes. (Extension)	July 21, 1871
115,857	Humphrey, Daniel W. G., assignor to self and Eugene Humphrey, Chelsea, Mass. Button-hole stitching-machine	June 13, 1871
115,322	Humphrey, Harriet A., Milwaukee, Wis. Caster for stove-legs, &c.	May 30, 1871
115,210	Humphrey, Hugh H., and Henry Bickford, assignors to Henry Bickford, Cincinnati, Ohio. Scroll-saw	May 23, 1871
119,031	Humphrey, James L., Syracuse, N. Y. Evaporating salt-water	Sept. 19, 1871
	Humphrey, John, Keene, N. H. Machine for cutting slots in clothes-pins. (Extension)	Mar. 30, 1871
111,748	Humphrey, John, assignor to James Wilson, Keene, N. H. Pump	Feb. 14, 1871
120,070	Humphrey, John, assignor to Bridgeport Manufacturing Company, Keene, N. H. Pump-piston	Oct. 17, 1871
116,059	Humphreys, Henry Temple, Ireland. Railway	June 20, 1871
114,144	Humphreys, William, Waterford, N. Y. Attachment to gas service-pipe for automatically cutting off the gas in case of fire	April 25, 1871
	Humphries, James, & Sons. (See Cowell, Albert, assignor.) (Twelve cases.) (Design.)	
119,984	Same.....(See Silcox, Josiah Mark, assignor)... (Two cases.) (Design.) ..	
	Humphries, Joseph, Washington, D. C. Boat hoisting, lowering, and detaching apparatus. (Antedated Oct. 10, 1871)	Oct. 17, 1871
119,148	Hungerford, George Whitney, Chicago, Ill. Process for polishing coffee	Sept. 19, 1871
119,149	Same.....Machine for cleaning coffee, grain, &c	Sept. 19, 1871
119,985	Hunsaker, George T., Carthage, Ill. Culinary shelves	Oct. 17, 1871
113,520	Hunt, Almon, Macomb, Ill. Cultivator	April 11, 1871
112,921	Hunt, Frank M., Macon, Ga. Fan and fly driver	Mar. 21, 1871
	Hunt, Frederick S. (See Stone, Samuel, assignor.)	
119,768	Hunt, George, Springfield, Mass. Dust-ring for watches	Oct. 10, 1871
112,044	Hunt, George G., Chicago, Ill. Base-burning stove	Feb. 21, 1871
117,292	Same.....same	July 25, 1871
112,249	Hunt, George W., assignor to self, George Place, and Charles F. Hardwick, New York, N. Y. Printing-press	Feb. 28, 1871
	Hunt, Henry C., and Thomas Ward. (See Ward & Hunt.)	
115,476	Hunt, James G., Cincinnati, Ohio. Open-front stove and fire-place	May 30, 1871
	Hunt, Joshua. (See Macon, Hezekiah, assignor.)	
	Hunt, Joshua, <i>et al.</i> (See Evans, Thomas & Hunt.)	
117,293	Hunt, Leander B., assignor to self and Roswell W. Turner, Hyde Park, Mass. Knitting-machine	July 25, 1871
111,211	Hunt, Lewis B., New York, N. Y. Railway-car wheel	Jan. 24, 1871
116,961	Same.....Car-wheel	July 11, 1871
	Hunt, Samuel H., and Frederick D. Dellinger. (See Dellinger & Hunt.)	
116,193	Hunt, Willis M., New York, N. Y. Wheel for vehicles	June 20, 1871
114,943	Hunt, Zebulon, Hudson, N. Y. Base-burning stove	May 16, 1871
111,941	Hunter, Charles E., Hinsdale, N. H. Machine for straightening bolts	Feb. 21, 1871
112,250	Hunter, Charles R., Douglas, Ill. Flood-fence	Feb. 28, 1871
114,011	Hunter, David James, Somerville, Mass. Brick-machine	April 25, 1871
	Hunter, James, and Paul Wilson. (See Wilson & Hunter.)	
119,362	Hunter, James B., Ashley, Ill. Motive-power	Sept. 26, 1871
114,145	Hunter, John M., New York, N. Y. Shoe-sole	April 25, 1871
114,944	Hunter, Robert, Cincinnati, Ohio. Flexible-propeller	May 16, 1871
	Hunter, Swift McG., and James Terry, jr. (See Terry & Hunter.)	
111,749	Hunter, Thomas, Philadelphia, Pa. Lithographic press	Feb. 14, 1871
	Hunter, William, & Sons. (See Kerr, William, assignor.) (Three cases.) (Design.)	
120,878	Huntington, David W., and William A. Hempstead, South Coventry, Conn. Balanced valve for steam-engines	Nov. 14, 1871
122,174	Same.....Liquid-meter	Dec. 26, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
122,116	Huntington, Frank A., San Francisco, Cal. Saw-collar	Dec. 26, 1871
122,117	Same.....Shingle-machine	Dec. 26, 1871
114,563	Huntington, William S., assignor to self and Ansel M. Kellogg, Byron, Mich. Railway-track gauge	May 9, 1871
111,545	Huntley, Curtis, Lowell, Mass. Flour-sifter	Feb. 7, 1871
	Huntley, George William. (See Trump, George, assignor)	(Two cases.)
121,106	Huntley, Merritt G., assignor to self and Harvey Bissell, Grand Rapids, Mich. Lining oil-barrels	Nov. 21, 1871
	Huntoon, David, <i>et al.</i> (See Foster, Calvin, A., assignor.)	
	Huntoon, George A., and Charles L. Sweatt. (See Sweatt & Huntoon.)	
111,647	Huntoon, George W., and Edwin Simonds, Lowell, Mass. Tap-wrench	Feb. 7, 1871
	Huntoon, Hazen P., and John J. Kenyon. (See Kenyon & Huntoon.)	
111,347	Huntoon, James W., Saint Louis, Mo. Grain-separator for thrashing-machines	Jan. 31, 1871
112,251	Same.....Horse-power	Feb. 28, 1871
114,296	Huntoon, Reuben K., Boston, Mass. Engine-governor	May 2, 1871
116,596	Same.....Governor for steam-engines	July 4, 1871
	Same.....(See Pottle, George F., assignor.)	
	Hupfel, Adolph G., and Louis L. Hyatt. (See Hyatt & Hupfel.)	
120,647	Hurd, Artemas B., Painted Post, Mo. Dash-board for carriages	Nov. 7, 1871
118,016	Hurd, Charles W., Comstock Landing, N. Y. Mechanical movement	Aug. 15, 1871
121,172	Hurd, Edwin F., deceased, by Henry H. Parsons, administrator, Hoosick Falls, N. Y. Machine for making axes	Nov. 21, 1871
120,648	Hurd, George H., Memphis, Tenn. Treadle-brace	Nov. 7, 1871
	Hurd, George H., <i>et al.</i> (See Finley, Hurd & Taten.)	
	Hurd, Orlando and Bradford C., <i>et al.</i> (See Canldwell, James A., assignor.)	
112,252	Hurl, Reuben, Morrison, Ill. Wagon-brake	Feb. 28, 1871
116,449	Hurlburt, Benjamin, assignor to self and Noble G. Olds, Fort Wayne, Ind. Manufacture of backs for carriage-seats	June 27, 1871
110,658	Hurlburt, Hiram E., Hammondsport, N. Y. Thrashing-machine	Jan. 3, 1871
	Hurlburt, Hiram H., and James G. Wilbur. (See Wilbur & Hurlburt.)	
113,299	Huse, Ralph C., jr., Georgetown, Mass. Automatic apparatus for operating the valve of the exhaust-pipe of locomotives	April 4, 1871
	Huson, Edgar, Ithaca, N. Y. Wagon	Mar. 2, 1871
	Huson, Isaiah A. (See Fitzgerald, Walter H., assignor.)	
115,858	Huss, John Adam, assignor to Bowling Green Improved Cylinder and Pump-Packing Company, Bowling Green, Ky. Piston for steam-engines and pumps	June 13, 1871
112,253	Hussey, Daniel, Lowell, Mass. Machine for warping yarn	Feb. 28, 1871
119,032	Same.....Spindle for spinning-machines	Sept. 19, 1871
	Hussey, D. J., <i>et al.</i> (See Devore, Leonard, assignor.)	
	Hussey, Elisha C., and John W. Boughton. (See Boughton & Hussey.)	
117,073	Hussey, Frank H. A., assignor to self and Aaron F. Smith, Lynn, Mass. Gaiter-shoe	July 18, 1871
	Hutchings, Timothy, <i>et al.</i> (See Shears, Albert L., assignor.)	
115,962	Hutchings, William, Newark, N. J. Toy-ring	June 13, 1871
110,852	Hutchins, Carleton B., Ann Arbor, Mich. Artificial stone for pavements, walks, floors, &c.	Jan. 10, 1871
112,045	Same.....Manufacture of paper and leather board	Feb. 21, 1871
116,597	Same.....Manufacture of potato-starch	July 4, 1871
	Hutchins, Charles, deceased, by G. F. Hutchins, administrator, East Douglass, Mass. Machine for making axes	Mar. 2, 1871
120,745	Hutchins, James, deceased, by Charlotte Ayre Hutchins, administratrix, Syracuse, Iowa. Fanning-mill	Nov. 7, 1871
112,922	Hutchins, Seth T., North Anson, Me. Cattle-tie	Mar. 21, 1871
119,769	Hutchinson, Charles H., Concord, N. H. Balance-slide valve	Oct. 10, 1871
111,064	Hutchinson, Elias S., Baltimore, Md. Apparatus for separating oil from grain and other materials	Jan. 17, 1871
112,046	Same.....Manufacture of flour	Feb. 21, 1871
112,349	Same.....Apparatus for removing oil from vegetable and other matter	Mar. 7, 1871
112,350	Same.....Apparatus and process for removing oil from grain, seeds, &c.	Mar. 7, 1871
117,079	Hutchinson, Samuel, Griggsville, Ill. Harrow and marker combined	July 18, 1871
113,300	Hutchinson, William, England. Brick and tile machine	April 4, 1871
110,975	Hutchison, Robert, assignor to William B. Gould, Newark, N. J. Stair-rod fastening	Jan. 17, 1871
118,455	Hutton, Charles E., Saint Louis, Mo. Rotary pump. (Antedated Aug. 18, 1871.) ..	Aug. 29, 1871
	Huttner, Henry J. (See Trapp, Edward A., assignor.)	
117,541	Huy, Jacob, Bakerstown, Pa. Horse hay-fork	Aug. 1, 1871
	Huyck, Aaron. (See Gale, Daniel J., assignor)	(Design.)
119,709	Hyams, Hiram Jacob, assignor of one-half interest to N. B. Hatch, Pittsburgh, Pa. Water-meter. (Antedated Sept. 22, 1871)	Oct. 10, 1871
113,055	Hyatt, Isaiah S., and John W. and Jesse A. Perkins, Albany, N. Y. Dental plates from pyroxyline	Mar. 23, 1871
114,945	Hyatt, John W., jr., Albany, N. Y. Process of coating billiard-balls, knife-handles, and other articles	May 16, 1871
119,710	Hyatt, John W., jr., assignor to Embossing Company, Albany, N. Y. In-laying	Oct. 10, 1871
121,522	Hyatt, John W., jr., and Isaiah S., assignors to Albany Dental Plate Company, Albany, N. Y. Apparatus for molding dental plates	Dec. 5, 1871
113,771	Hyatt, Lewis L., New York, and Adolph G. Hupfel, Morrisania, N. Y. Barrel-rolling apparatus	April 18, 1871
121,371	Hyde, Charles E., Oswego, N. Y. Clothes-drier and awning combined	Nov. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,521	Hyde, Dwight, and Ephraim H. Andrews, Bridgeport, N. Y. King-bolt for carriages.....	April 11, 1871
	Hyde, George, and Joseph P. Adams. (See Adams & Hyde)..... (Design.)	
	Hyde, George Warren, and Thomas Wallace. (See Wallace & Hyde.)	
4,530	Hyde, James R., assignor to Eddy, Corse & Co., Troy, N. Y. Cooking-stove. (Reissue)	Aug. 29, 1871
111,212	Hyde, Oliver, Oakland, Cal. Operating-cutter for steam-plows.....	Jan. 24, 1871
111,213	Same..... Elastic tire for friction-engines.....	Jan. 24, 1871
113,522	Same..... Seed-drilling machine.....	April 11, 1871
117,174	Same..... Traction-wheel.....	July 18, 1871
117,422	Same..... Elastic tire for traction-engines.....	July 25, 1871
118,613	Same..... Tubular steam-boiler.....	Aug. 29, 1871
129,071	Same..... Steam-plow.....	Oct. 17, 1871
114,824	Hyland, Amasa, Hingham, Mass. File.....	May 16, 1871
	Hyland, John. (See Lewis, George W., assignor.)	
121,372	Hyle, Henry A., Shamburgh, Pa. Pipe-wrench.....	Nov. 28, 1871
122,118	Hyndman, William G., Cincinnati, Ohio. Rotary blower.....	Dec. 26, 1871
	Hynds, George A., and Nathaniel Parks. (See Parks & Hynds.)	
110,763	Hynes, Michael T., Boston, Mass. Broiler.....	Jan. 3, 1871
118,535	Hynes, Patrick J., Stoughton, Wis. Fence.....	Aug. 29, 1871
120,746	Ibeck, Lawrence, Kickapoo, Ill. Railway-car coupling.....	Nov. 7, 1871
114,440	Ide, Albert L., Springfield, Ill. Steam-heater.....	May 2, 1871
115,477	Same..... same.....	May 30, 1871
116,962	Same..... Draught-regulator.....	July 11, 1871
121,373	Ide, Samuel, Medina, N. Y. Scroll-saw guide.....	Nov. 28, 1871
116,060	Ide, Truman H., Claremont, N. H. Printing-press.....	June 20, 1871
114,441	Illingworth, Benjamin, Le Roy, Minn. Harvester-rake.....	May 2, 1871
122,175	Illingworth, Frederick A., Waltham, Mass. Car-coupling.....	Dec. 26, 1871
5,028	Ils, John G., San Francisco, Cal. Grate-hearth..... (Design)	June 20, 1871
117,635	Same..... Slop-hopper.....	Aug. 1, 1871
	Ilsley, Silas A., and Charles L. Northrup. (See Chace, John K., assignor.) (Reissue.)	
	Ingalls, Helen M. (See Norton, Marcus P., assignor.)	
117,888	Ingalsbe, Homer H., South Hartford N. Y., and Gustavus A. Prescott, Sandy Hill, N. Y. Pruning-shears.....	Aug. 8, 1871
120,649	Ingebrigtsen, Bendix, Cambridge, Wis. Corn-planter.....	Nov. 7, 1871
	Ingersoll, Adeline M., et al. (See Scott, Thomas R., assignor.)	
114,564	Ingersoll, Platt C., Greenpoint, N. Y. Revolving and rocking chair.....	May 9, 1871
112,254	Ingersoll, Simon, Brooklyn, N. Y. Rock-drill.....	Mar. 7, 1871
115,478	Same..... Valve-motion.....	May 30, 1871
120,279	Same..... Rock-drill.....	Oct. 24, 1871
119,519	Ingersoll, Stephen H., New York, N. Y. Wood-pavement.....	Oct. 3, 1871
	Ingham, Warren Roland, et al. (See Race, Washburn, assignor.)	
112,462	Ingle, Mark W., Indianapolis, Ind. Tongs for rolling barrels.....	Mar. 7, 1871
111,546	Inglefield, Edward Augustus, England. Steering-apparatus.....	Feb. 7, 1871
113,772	Ingraham, Elias, Bristol, Conn. Application of bronze and gilding to plate-glass.....	April 25, 1871
4,948	Same..... Clock-case sash..... (Design)	May 30, 1871
4,979	Same..... Clock case..... (Design)	June 6, 1871
4,441	Same..... Embellishment of glass..... (Reissue)	June 27, 1871
	Ingram, Nelson. (See Bragaw, John A., assignor.)	
112,146	Ingrham, Amer, assignor to William L. Boyer & Brother, Philadelphia, Pa. Lawn-mower.....	Feb. 28, 1871
114,012	Inman, Peter H., and Charles B. Withington, Janesville, Wis. Coffee-pot.....	April 25, 1871
	Innes & Magill. (See Zenner, Charles, assignor)..... (Design.)	
117,294	Innes, David K., and Wesley W. Magill, Cincinnati, Ohio. Mantel and front for fire-places.....	July 25, 1871
4,612	Same..... Mantel and front for fire-places..... (Division A, reissue)	Oct. 31, 1871
4,613	Same..... same..... (Division B, reissue)	Oct. 31, 1871
115,479	Ireland, George H., Somerville, Mass. Safe.....	May 30, 1871
	Iron Manufacturing and Coal Company. (See Reece, William R., assignor.)	
	Irvine, Robert, et al. (See Richardson, Lundy & Irvine)..... (Reissue.)	
120,879	Irwin, Amanda M., Brooklyn, N. Y. Medical compound, or pile-ointment.....	Nov. 14, 1871
120,747	Irwin, George M., Birmingham, Pa. Glass globe for lamps.....	Nov. 7, 1871
120,748	Same..... Top for molasses-pitchers.....	Nov. 7, 1871
	Irwin, James, et al. (See Godfrey, Joseph S., assignor.)	
115,059	Irwin, John H., Philadelphia, Pa. Lantern-globe holder.....	May 23, 1871
115,613	Isbell, Charles W., New York, N. Y. Rotary pump. (Antedated June 1, 1871.)	June 6, 1871
	Isham, Frank W., and Elizabeth Yielding. (See Yielding, Richard, assignor.) (Reissue.)	
120,818	Isham, George B., Burlington, Vt. Broom and mop holder.....	Nov. 14, 1871
115,614	Isherwood, Thomas, Stonington, Conn. Loom-shuttle.....	June 6, 1871
115,859	Same..... England. Woven fabric.....	June 13, 1871
4,522	Same..... Stonington, Conn. Loom-shuttle..... (Reissue)	Aug. 22, 1871
	Isherwood, Thomas, et al. (See Tucker, Frederick O., assignor.)	
113,056	Iske, Anthony, assignor to Daniel H. Lintner, Lancaster, Pa. Refrigerator and water-cooler.....	Mar. 28, 1871
121,459	Iske, Anthony, assignor of one-half interest to Hilaire Zaepfel, Lancaster, Pa. Dumping-wagon.....	Dec. 5, 1871
	Ithaca Agricultural Works. (See Jessup & Sharp, assignors.)	
114,146	Ivens, William H., Trenton, N. J. Steam-generator.....	April 6, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,297	Ivens, William H., and William E. Brooke, Trenton, N. J. Combined punching and shearing machine	May 2, 1871
114,686	Ivens, William H., assignor to self and William E. Brooke, Trenton, N. J. Insertible saw-teeth	May 9, 1871
114,147	Ives, Eldridge W., Hamden, Conn. Carriage-axle	April 25, 1871
114,148	Same..... Carriage-axle box	April 25, 1871
118,369	Ives, Ellsworth D., Philadelphia, Pa. Hub for wheels of vehicles	Aug. 22, 1871
115,860	Ives, George and Hiram, Detroit, Mich. Bent sleigh-knee, bench, and brace	June 13, 1871
	Ives, George N., and Francis D. Kellogg. (See Kellogg & Ives.)	
110,919	Ives, Hubert R., New Haven, Conn. Sad-iron	Jan. 10, 1871
	Ives, Hubert R., and Roger N. Allen. (See Scott, George, assignor.)	
111,547	Ives, James, Mount Carmel, Conn. Mode of fastening hub-bands, &c.	Feb. 7, 1871
114,298	Same..... Mode of lubricating axles	May 2, 1871
110,920	Ives, William A., New Haven, Conn. Auger-handle	Jan. 10, 1871
111,648	Same..... Auger	Feb. 7, 1871
111,649	Same..... Bit-brace	Feb. 7, 1871
112,255	Same..... Method of forming spur-lips of auger-bits	Feb. 28, 1871
115,211	Same..... Bug-borer	May 23, 1871
119,770	Ives, William H., Luzerne, N. Y. Spike-extractor	Oct. 10, 1871
112,714	Ivory, John, New York, N. Y. Fire-escape	Mar. 14, 1871
117,782	Jaccard, Sannuel and Justin J., assignors to D. Constant Jaccard, Switzerland. Stem-winding watch	Aug. 8, 1871
114,149	Jack, Robert, Des Moines, Iowa. Vehicle	April 25, 1871
	Jackson & Wiley. (See Durfee, William F., assignor.)	
118,133	Jackson, Amariah W., Napoleon, Ohio. Steam-engine	Aug. 15, 1871
114,849	Jackson, Charles A., Boston, Mass. Folding-chair	Oct. 10, 1871
	Jackson, Charles A., et al. (See Burleigh, Laroy G., assignor.)	
119,363	Jackson, Henry, Brooklyn, N. Y. Propulsion of vessels	Sept. 26, 1871
116,714	Jackson, James L., New York, N. Y. Frame for sashes, roof-skylights, &c.	July 4, 1871
118,017	Same..... Table for emery-grinders	Aug. 15, 1871
5,369	Same..... Manger (Design)	Nov. 21, 1871
5,370	Same..... same (Design)	Nov. 21, 1871
5,397	Same..... Harness saddle-bracket (Design)	Dec. 5, 1871
5,398	Same..... Manger (Design)	Dec. 5, 1871
5,399	Same..... Hook for harness (Design)	Dec. 5, 1871
5,400	Same..... Saddle and bridle bracket (Design)	Dec. 5, 1871
5,414	Same..... Harness-bracket (Design)	Dec. 12, 1871
5,415	Same..... Hook to hang harness on (Design)	Dec. 12, 1871
5,416	Same..... Hook for hanging harness on (Design)	Dec. 12, 1871
122,253	Same..... Table for emery-grinders	Dec. 26, 1871
	Jackson, James L., & Bro. (See Nuhn, Michael, assignor.)	
116,194	Jackson, John, Coopersville, Mich. Churn	June 20, 1871
118,134	Jackson, John, jr., Chatsworth, Ill. Corn-planter	Aug. 15, 1871
118,536	Jackson, John H., and Samuel Leak, Putnam, Conn. Machine for twisting yarn	Aug. 29, 1871
121,374	Jackson, Peter H., New York, N. Y. Iron girder	Nov. 28, 1871
116,061	Jackson, Richard A., assignor to self, Francis G. Walker, and Patrick Fetherstone, Alliance, Ohio. Rocker for cradles, &c.	June 20, 1871
119,850	Jackson, Richard A., and Samuel Gissinger, Pittsburgh, Pa. Concrete pavement	Oct. 10, 1871
	Jackson, Silas E., and Morgan P., Boonville, N. Y. Mowing-machine. (Extension)	Dec. 28, 1871
	Jackson, Thomas, et al. (See Brooks, Thomas, assignor.)	
118,847	Jackson, William N., Muncie, Ind. Sash-cord fastener	Feb. 14, 1871
111,848	Jackson, William N., assignor to self and Benjamin F. Jackson, Muncie, Ind. Thrashing-machine	Feb. 14, 1871
111,846	Jacobs, Isaac, New York, N. Y. Pen-holder	Feb. 14, 1871
118,943	Jacobs, William E., Columbus, Ohio. Sugar-evaporator	Sept. 12, 1871
112,351	Jacobsen, Charles F., New York, N. Y. Chandelier	Mar. 7, 1871
122,254	Jacobus, Peter N., Montague, N. J. Dental forceps	Dec. 26, 1871
113,057	Jacobus, Pierson, Romulus, N. Y. Sawing-machine	Mar. 28, 1871
4,964	Jacoby, Jacob, Johnstown, Pa. Weather-boarding (Design)	May 30, 1871
121,625	Jacquin, James L., New York, N. Y. Parasol	Dec. 5, 1871
111,849	Jaeger, Gustave L., New York, N. Y. Machine for lining pasteboard	Feb. 14, 1871
117,423	Same..... Paper box	July 25, 1871
113,672	Jaeger, Julius, Tompkinsville, N. Y. Machine for dressing and punching slate	April 11, 1871
	Jagel, Julius M., et al. (See Bobz, Grebner & Jagel.)	
121,375	Jager, Gottfried, Indianapolis, Ind. Compound for coloring leather. (Ante-dated Nov. 13, 1871)	Nov. 28, 1871
117,889	Jagielski, Victor Appollinaris, England. Dietetic compound for milk	Aug. 8, 1871
120,385	James, Henry B., Trenton, N. J. Compensation-pendulum	Oct. 31, 1871
118,774	James, John Williamson, and Josiah Streit, Centre Town, Mo. Washing-machine	Sept. 5, 1871
	James, Jonathan H., et al. (See Boswell, Palmer & James.)	
118,944	James, Remington, Lockport, N. Y., and John W. Currier, Springfield, Mass. Vegetable-slicer	Sept. 12, 1871
115,736	James, Thomas J., Petersburg, Va. Water-cooler	June 6, 1871
117,080	James, Willard C., Fishersville, N. H. Construction of doors	July 18, 1871
117,175	Same..... Belt-fastener	July 18, 1871
120,886	Same..... Music-stand	Nov. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
5,045	James, William Collier, England. Black-lead block..... (Design)..	June 27, 1871
111,850	James, W. G., Richmond Centre, Wis. Stove-oven grate.....	Feb. 14, 1871
4,122	Jameson, Jacob, Philadelphia, Pa. Manufacture of iron and steel... (Reissue)..	Nov. 7, 1871
	Jamison, George. (See Nash, George W., assignor.)	
	Jamison, Hugh S., and Turner Barns. (See Barns & Jamison.)	
121,376	Jamison, Samuel S., jr., Saltzburgh, Pa. Steam and water injector	Nov. 28, 1871
115,615	James, Charles P., Boston, Mass. Atomizer	June 6, 1871
119,613	Janney, Nathan L., assignor to self and William L. Gilbert, Wilmington, Del. Egg-packing box	Oct. 3, 1871
115,212	Janson, Bernhard, Effingham, Ill. Velocipede.....	May 23, 1871
	Jaques, John S., and Frank T. (See Smith, Charles E., assignor.)	
111,125	Jaquess, James F., Commerce, Miss. Harrow and cultivator	Jan. 24, 1871
121,377	Jaquith, Frederick P., Hoosick Falls, N. Y. Thrashing-machine.....	Nov. 28, 1871
115,861	Jaquith, Frederick P., assignor to self, Lyman W. Wilder, William Chapman, and Alvin Willey, Hoosick Falls, N. Y. Mechanism for transmitting power	June 13, 1871
112,600	Jaquith, Gilman, West Concord, Mass. Machine for dressing yarn or thread..	Mar. 14, 1871
122,021	Jarvis, Charles, New York, N. Y. Line-connector	Dec. 19, 1871
117,890	Jarvis, Charles B., and James W. Goff, Cincinnati, Ohio. Still for beer, &c....	Aug. 8, 1871
119,520	Jarvis, Granville E., Grafton, W. Va. Railway-rail chair	Oct. 3, 1871
114,150	Jarvis, Oliver S., Xenia, Ill. Horse hay-rake	April 25, 1871
112,463	Jason, George W., Lodi, Ohio. Pitman	Mar. 7, 1871
114,299	Jay, Pierre E., and John A. Rafter, Montreal, Canada. Manufacture of cast-steel	May 2, 1871
110,659	Jeanness, John S., Bangor, Me. Double hinge	Jan. 3, 1871
115,616	Jedkins, James W., Monmouth, Me. Shutter-worker	June 6, 1871
120,072	Jeffers, A. Perley M., assignor to self, Milton C. Jeffers, and Eugene F. Beecher, Allegan, Mich. Panoramic school-apparatus	Oct. 17, 1871
	Jeffery, Edward T., and Samuel J. Hayes. (See Hayes & Jeffery.)	
111,548	Jeffery, Edwin A., New York, N. Y. Batter-pot.....	Feb. 7, 1871
120,974	Jeffery, Robert, assignor to self, James L. Shute, and William T. Merchant, Gloucester, Mass. Fishing-seine	Nov. 14, 1871
121,626	Jeffery, Thomas B., assignor to Horace Wickham, jr., Chicago, Ill. Pneumatic motor	Dec. 5, 1871
118,370	Jeffords, Mortimer W., Muskegon, Mich. Saw	Aug. 22, 1871
111,126	Jenkins, Ebenezer C., jr., Worcester, Mass. Ash-screen	Jan. 24, 1871
110,976	Jenkins, Edward T., Brooklyn, N. Y. Pump	Jan. 17, 1871
115,737	Jenkins, James, Bethlehem, Pa. Apparatus for separating and concentrating ores and other materials	June 6, 1871
121,378	Jenkins, Jesse, assignor of one-third interest to Abner C. P. Shoemaker, Sligo, Md. Wagon	Nov. 28, 1871
113,523	Jenkins, Nelson, Detroit, Mich. Balance-valve for steam-engines	April 11, 1871
120,073	Jenkins, Philip R., Cottonville, Iowa. Cultivator.....	Oct. 17, 1871
116,598	Jenkins, Richard, Newark, Ohio. Furnace for puddling iron, &c.....	July 4, 1871
115,738	Jenkins, Robert, and Theodore Woods, Allegheny County, Pa. Apparatus for dumping coal	June 6, 1871
	Jenks, Alvin F. and Stephen A., et al. (See Wilmarth, Moses P., assignor.) (Re-issue.)	
	Jenks, Barton H. (See Craven, Thomas C., assignor.)	
	Jenks, Henry F. (See Marsh, Thomas, assignor.)	
115,862	Jenks, Henry F., and Thomas Marsh, Pawtucket, R. I. Egg-beater.....	June 13, 1871
115,863	Jenks, Robert V., and William A. Miller, Paterson, N. J. Bed-bottom.....	June 13, 1871
111,214	Jenks, Samuel B., and Frederick A. Holcomb, Grand Rapids, Mich. Manufacture of leather	Jan. 24, 1871
114,442	Jenks, Thomas Masterson, New York, N. Y. Bobbin-winder for sewing-machines.....	May 2, 1871
120,749	Jenks, William S., assignor to self and Orrin L. Jenks, Port Huron, Mich. Head-block for saw-mills	Nov. 7, 1871
	Jenner, Charles H., and Samuel Johnston. (See Johnston & Jenner.)	
118,456	Jenner, Louis J., Chicopee Falls, Mass. Combined watch-key and cork-screw ..	Aug. 29, 1871
	Jennings, Abraham G. (See Slack, John, assignor.)..... (Design.)	
117,636	Jennings, Edmund, Sherman, N. Y. Washing-machine.....	Aug. 1, 1871
116,314	Jennings, Edwin, Candor, N. Y. Reversible plow	June 27, 1871
118,857	Jennings, Herbert Thomas and Thomas, England. Steam-engine.....	Sept. 12, 1871
116,963	Jennings, John H., New Bedford, Mass. Thill-coupling	July 11, 1871
120,975	Jennings, J. Henry, New Bedford, Mass. Hydraulic motor	Nov. 14, 1871
120,976	Jennings, Ralph S., Philadelphia, Pa. Moth-proof clothing-chest.....	Nov. 14, 1871
114,013	Jennings, Royal, Shelbyville, Ind. Drum for heating and ventilating.....	April 25, 1871
113,301	Jennisen, George, and Merrick F. Otis, Westborough, Mass. Window-blind operator	April 4, 1871
119,851	Jenny, Ferdinand, Parkersburgh, W. Va. Key-hole guard	Oct. 10, 1871
	Jensen, James L. (See Sloan, Thomas J., assignor.)	
117,637	Jensen, Jens, Racine, Wis. Standard for wagons	Aug. 1, 1871
5,371	Jenson, John, assignor to the Meriden Britannia Company, West Meriden, Conn. Pickle-jar.....	Nov. 21, 1871
118,858	Jeralds, Silas E., Horace A. Nettleton, and Edwin R. Lawton, West Cheshire, Conn. Method of manufacturing ferrules.....	Sept. 12, 1871
112,715	Jeranld, Henry F., assignor to Jeranld & Stolle, Vandalia, Ill. Draught-equalizer for three horses	Mar. 14, 1871
112,716	Jeremiah, George A., New York, N. Y. Bedstead	Mar. 14, 1871
	Jerome, Edgar, and Seth Wheeler. (See Wheeler & Jerome.)	
113,524	Jervey, William E., New Orleans, La. Packing-tube for vapor-lamps.....	April 11, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,352	Jessup, Carrie, New Haven, Conn. Culinary vessel	Mar. 7, 1871
117,295	Jessup, Gilbert, Shortsville, N. Y., and Dennis P. Sharp, Ithaca, N. Y., assignors to Ithaca Agricultural Works. Seed and plaster sower.....	July 25, 1871
	Jessup, Isaac. (See Polley, Henry, assignor.)	
119,150	Jewell, Robert B., Dunkirk, N. Y. Lateral-motion center-pin for railway-trucks.	Sept. 19, 1871
119,614	Jewett, Abram, Sanford Corners, N. Y. Portable fence.....	Oct. 3, 1871
	Jewett, Stanley A., Cleveland, Ohio. Melodeon..... (Extension) ..	Oct. 9, 1871
4,312	Jillson, William C., and Amos B. Palmer, Willimantic, Conn. Machine for opening cotton..... (Reissue) ..	Mar. 28, 1871
114,443	Jimo, Joseph, assignor to self and E. H. Landon, Vergennes, Vt. Shingle-machine.....	May 2, 1871
117,542	Jilz, William W., Hamilton, Mo. Earth-boring auger	Aug. 1, 1871
118,244	Jochum, John, Brooklyn, N. Y. Propelling canal and other vessels	Aug. 22, 1871
4,690	Joeckel, William H., New York, N. Y. School-seat..... (Design) ..	Feb. 28, 1871
4,669	John, James, Chicago, Ill. Stucco center-piece..... (Design) ..	Feb. 21, 1871
119,615	Same..... Foundation for plastering	Oct. 3, 1871
	John, Lewis A., and Thomas H. Coate. (See Coate & John.)	
118,851	Johns, William Burr, Philadelphia, Pa. Treating bones, horns, hoofs, &c., for the manufacture of fertilizers	Feb. 14, 1871
116,964	Johnsen, Charles G., New Orleans, La. Cotton-bale tie.....	July 11, 1871
	Johnson & Bassett. (See Wright, Edward, assignor.)	
	Johnson, Albert F., Parkville, N. Y. Sewing-machine..... (Extension) ..	Jan. 13, 1871
112,601	Johnson, Albert W., assignor to self, Rufus Baker, and Oscar D. Lee, Middletown, Conn. Embroidering-attachment for sewing-machine.....	Mar. 14, 1871
122,022	Johnson, Anson B., Washington, Ind. Chimney-cap.....	Dec. 19, 1871
	Johnson, Armory K., and Gustavus H. Wright. (See Wright & Johnson.)	
	Johnson, Asa, Brooklyn, N. Y. Mode of fastening sheet-metal on roofs, &c. (Extension) ..	May 16, 1871
	Same..... New York, N. Y. Machine for rolling cornices .. (Extension) ..	Dec. 21, 1871
112,924	Johnson, Asa, assignor to self and William H. Johnson, Brooklyn, N. Y. Rolling-mill.....	Mar. 21, 1871
	Same..... Steam-engine	May 2, 1871
114,370	Johnson, Benjamin F., Glasgow, Mo. Lifting-jack.....	Feb. 21, 1871
111,942	Johnson, Bradbury M., assignor to self and William H. M. Pye, Brooklyn, N. Y. Direct-acting engine	Sept. 19, 1871
120,587	Johnson, Charles, Chicago, Ill. Bed-bottom.....	Nov. 7, 1871
115,460	Johnson, Charles Fred., jr., Owego, N. Y. Machine for cutting off horseshoe-nails	May 30, 1871
115,864	Johnson, Charles L., Omaha, Nebr. Power for small machinery.....	June 13, 1871
113,773	Johnson, Charles P., Jamaica Plains, Mass. Inner sole for boots and shoes.....	April 18, 1871
119,852	Johnson, Daniel, Ashland, Ohio. Pump-piston.....	Oct. 10, 1871
113,525	Johnson, Daniel A., Boston, Mass. Thill-coupling.....	April 11, 1871
4,681	Same..... same..... (Reissue) ..	Dec. 26, 1871
114,565	Same..... Wheel-rim. (Antedated May 1, 1871).....	May 9, 1871
	Johnson, Earl W. (See Abbott & Sherburne, assignors.)	
	Johnson, Edward W., and John L. Moss. (See Moss & Johnson.)	
5,377	Johnson, Ephraim S., New York, N. Y. Pen or pencil case..... (Design) ..	Nov. 21, 1871
121,627	Same..... Jersey City, N. J. Ornamenting pencil-cases	Dec. 5, 1871
	Same..... (See Clark, James M., assignor.)	
119,616	Johnson, Erastus D., and Edward A. Cowan, Thorntown, Ind. Thill-coupling.....	Oct. 3, 1871
113,526	Johnson, Ezra A., assignor to self and Alexander Warfield, Philadelphia, Pa. Soap for polishing metals, &c.....	April 11, 1871
	Johnson, Frank L. and George, <i>et al.</i> (See Cauldwell, James A., assignor.)	
118,614	Johnson, George E., and William Boston, Biddeford, Me. Drill-rest for chucking-lathe.....	Aug. 29, 1871
110,764	Johnson, George H., New York, N. Y. Hollow brick.....	Jan. 3, 1871
112,925	Same..... Hollow-tile wall.....	Mar. 21, 1871
112,926	Johnson, George H., and Balthazar Kreischer, New York, N. Y. Hollow-tile floor.....	Mar. 21, 1871
112,927	Same..... Reservoir for grain and other materials	Mar. 21, 1871
121,736	Johnson, George H., and Fred. Bottner, Bridgeport, Conn. Trunk-lid support.....	Dec. 12, 1871
115,865	Johnson, Hiram R., Detroit, Mich. Apparatus for heating and drying sand, gravel, &c.....	June 13, 1871
	Johnson, Ianthus G., and Sennitt A. Wing. (See Wing & Johnson.)	
112,147	Johnson, Isaac A., assignor to self and Frederick M. Manny, Rockford, Ill. Harvester.....	Feb. 28, 1871
121,721	Johnson, Isaac D., Kennett Square, Pa. Lifting-jack.....	Dec. 12, 1871
117,296	Johnson, James G., Carthage, Ill. Hand corn-husker.....	July 25, 1871
4,299	Johnson, Jesse, Cochransville, Pa. Device for cutting bolts and rivets..... (Reissue) ..	Mar. 14, 1871
	Same..... Bolt-cutter	Sept. 26, 1871
119,231	Johnson, John, Brooklyn, N. Y. Valve.....	Feb. 21, 1871
115,866	Johnson, John, Berry, Ill. Clothes-drier.....	June 13, 1871
120,881	Johnson, John, Hartford, Conn. Spring-bed.....	Nov. 14, 1871
122,176	Johnson, John, Boston, Mass. Corn-harvester.....	Dec. 26, 1871
	Johnson, John J., and Dennis D. Foley. (See Foley & Johnson.)	
113,889	Johnson, Josee, New York, N. Y. Peanut-huller.....	April 18, 1871
113,890	Same..... Apparatus for cleaning coffee, &c.....	April 18, 1871
	Johnson, J. Perrin. (See Hicks, Levi S., assignor.)	
117,824	Johnson, Lawrence J., Cleveland, Ohio. Bedstead.....	July 25, 1871
119,151	Johnson, Leonard A., assignor to self and John O. Frost, Candor, N. Y. Clamp for making picture-frames.....	Sept. 19, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,379	Johnson, Moses, Three Rivers, Mich. Potato-digger	Nov. 23, 1871
115,213	Johnson, Moses, assignor of half interest to John G. Ott, Three Rivers, Mich. Cultivator and weeding-machine	May 23, 1871
4,547	Johnson, Moses A., assignor to Horace B. Shattuck, Lowell, Mass. Insole for boots and shoes. (Reissue)	Sept. 12, 1871
113,302	Johnson, Nelson and Ransom E., Jasper, N. Y. Milk-cooler	April 4, 1871
111,852	Johnson, Norman C., and Charles W. Peeler. (See Peeler & Johnson.)	
118,945	Johnson, Ross, Lawrence, Kans. Attachment to plows for subsoiling	Feb. 14, 1871
117,891	Same..... Plow	Sept. 12, 1871
117,638	Johnson, Samuel B., Philadelphia, Pa. Fire-extinguisher	Aug. 8, 1871
117,892	Johnson, Sidney, England. Velocipede	Aug. 1, 1871
4,531	Johnson, Thomas E., Indianapolis, Ind. Peach-stone extractor	Aug. 8, 1871
114,014	Johnson, Thomas W., jr., and Anthony W. Goodell, Windsor, Canada. Apparatus for evaporating and concentrating bark-extract	Aug. 29, 1871
121,787	Johnson, William, Edisto Island, S. C. Pendulum, lever, and clinometer	April 25, 1871
121,944	Johnson, William, New York, N. Y. Manufacture of soap	Dec. 12, 1871
116,715	Johnson, William, Haverhill, Mass. Hemmer for sewing-machines	Dec. 19, 1871
113,171	Johnson, William, assignor to self and Hosea B. Carter, Haverhill, Mass. Ruffling and hemming attachment for sewing-machines	July 4, 1871
116,599	Johnson, William C., Philadelphia, Pa. Hub for wheels	Mar. 28, 1871
116,600	Johnson, William J., Newton, Mass. Garden-syringe	July 4, 1871
117,639	Johnson, William J., assignor to self and Henry A. Hildreth, Newton, Mass. Corn-popper	July 4, 1871
114,825	Johnson, William Nevins, assignor to C. H. McCormick & Brother, Oxford, Wis. Harvester	Aug. 1, 1871
113,891	Johnson, Willis, Waterbury, Conn. Rack-pulley shade-fixture	May 16, 1871
111,458	Johnston, Algernon K., Brooklyn, N. Y. Pipe for water, gas, &c.	April 18, 1871
116,716	Johnston, Allen and William T., Ottumwa, Iowa. Gathering-attachment for sewing-machines	Jan. 31, 1871
113,172	Johnston, Benjamin, Sterling, Ill. Harrow	July 4, 1871
116,062	Johnston, Columbus, Clarksville, Mo. Churn-dasher	Mar. 28, 1871
5,427	Johnston, David, Eddyville, Iowa. Hand-car	June 20, 1871
5,029	Johnston, James C., Scarborough, N. Y. Carpet-pattern	Dec. 19, 1871
114,946	Same..... New York, N. Y. Carpet-pattern	June 20, 1871
117,425	Johnston, James J., Columbiana, Ohio. Artificial stone for buildings	May 16, 1871
117,426	Same..... Allegheny, Pa. Apparatus for distilling hydrocarbons. (Ante-dated July 13, 1871)	July 25, 1871
118,018	Same..... Process and apparatus for treating hydrocarbon oils. (Ante-dated July 13, 1871)	July 25, 1871
118,019	Johnston, John, Hartford, Conn. Spring-bed	Aug. 15, 1871
116,063	Johnston, Leslie, and Alexander Anderson. (See Anderson & Johnston.)	
120,977	Johnston, Reuel P., Steubenville, Ohio. Metal carpet-binding	Aug. 15, 1871
120,978	Johnston, Samuel, and Charles H. Jenner, assignors through mesne assignments to James S. Thayer, Brockport, N. Y. Harvester	June 27, 1871
120,979	Johnston, Samuel, assignor to James S. Thayer, Brockport, N. Y. Mowing-machine	June 27, 1871
114,566	Johnston, Wilbur F. and William A., Brooklyn, N. Y. Apparatus for liquefying nitrous oxide and other gases	Nov. 14, 1871
115,867	Same..... Method of compressing and liquefying nitrous oxide and other gases	Nov. 14, 1871
115,963	Johnston, William, Decatur, Mich. Car-coupling	May 9, 1871
116,316	Johnston, William M., Wilmot, Ohio. Driving-attachment to washing-machines	June 13, 1871
122,023	Johnstone, John Stewart, North Britain. Motive-power engine	June 13, 1871
4,949	Joline, Truman W., and Jacob W. Androvatt. (See Androvatt & Joline.)	
116,317	Jonais, Alfred Courvoisier, Switzerland. Calendar-watch	June 27, 1871
117,783	Jones, Albert L., New York, N. Y. Paper for packing	Dec. 19, 1871
114,444	Jones, Alfred F., New York, N. Y. Bellows	May 30, 1871
113,892	Same..... Journal-bearing	June 27, 1871
121,523	Same..... Bellows	Aug. 8, 1871
119,232	Jones, Amos, Lebanon, N. H. Potato-baking pan	May 2, 1871
119,462	Jones, Campbell and Albert, Santa Anna, Ill. Beehive	April 18, 1871
122,024	Jones, Charles L., Pedler Township, Va. Medical compound for the cure of hog cholera	Dec. 5, 1871
122,025	Jones, Daniel, Boston, Mass. Sucker-rod	Sept. 26, 1871
116,450	Jones, David, Allegheny, Pa. Saw-set	Oct. 3, 1871
115,214	Jones, Edward, Boston, Mass. Coal-gas apparatus	Dec. 19, 1871
111,215	Same..... Apparatus for the manufacture of gas	Dec. 19, 1871
116,318	Jones, Edward, assignor to the American Coal Gas-Light Improvement Company, Boston, Mass. Apparatus for the manufacture of illuminating-gas	June 27, 1871
119,931	Jones, Edward F., Foxborough, Mass. Molder-flask	May 23, 1871
118,946	Jones, Edward L., Memphis, Tenn. Combined feed-water heater and circulator	Jan. 24, 1871
121,380	Jones, Elias, Grand River, Iowa. Safety-pocket	June 27, 1871
119,152	Same..... Pierrepont, N. Y. Fire-extinguisher	Oct. 17, 1871
115,481	Jones, Ezekiel Pickard, and James Lafayette Harrell, Hartford, N. C. Cultivator	Sept. 12, 1871
	Jones, Francis M., Independence, Miss. Monument	Nov. 28, 1871
	Jones, Franklin, Terre Haute, Ind. Potato-digger	Sept. 19, 1871
	Jones, George A., New York, N. Y., and Horace H. Warner, Bristol, Conn., assignors to George A. Jones. Striking-mechanism of clocks	May 30, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Jones, George H., and Louis D. Boyce. (<i>See Boyce & Jones.</i>)	
117,176	Jones, Griffith W., Nashville, Tenn. Hollow-grate feed-water heater	July 18, 1871
115,060	Jones, Harry, Richmond, Ind. Caster for sewing-machines	May 23, 1871
	Jones, Herbert C. (<i>See Cole, Andrew Norton, assignor.</i>)	
113,058	Jones, Horace C., Dowagiac, Mich. Former for baskets	Mar. 28, 1871
113,059	Same.....Stave-basket	Mar. 28, 1871
	Jones, Hugh A., and James W. Reed. (<i>See Reed & Jones.</i>)	
115,482	Jones, James, Rochester, N. Y. Rocking-grate bar	May 30, 1871
120,198	Jones, James H., assignor of one-third interest to Joseph S. Parrott, Yellow Springs, Ohio. Bran-duster and flour-bolt	Oct. 24, 1871
4,313	Jones, James P., assignor to Jason Crane, Bloomfield, N. J. Muff and collar box	Mar. 28, 1871
	(Reissue)	
112,464	Jones, John, assignor to self and Henry A. Smith, New York, N. Y. Paste for paper-hangings	Mar. 7, 1871
114,151	Jones, John A., Richard Howson, and John Giers, assignors to Theodore Fox, Jeremiah Head, and Charles M. Newcomer, England. Puddling and other furnaces	April 25, 1871
119,771	Jones, John B., Williamsburgh, N. Y. Press for stamping pans, dishes, &c	Oct. 10, 1871
114,567	Jones, John E., Watertown, N. J. Elastic tackle-block	May 9, 1871
117,640	Jones, John T., Ilion, N. Y. Sewing-machine	Aug. 1, 1871
114,015	Jones, John W., of Philip De Catesby, Hereford, Md. Car-coupling	April 25, 1871
110,765	Jones, Joseph, Newark, N. J. Carpenters' shooting-board	Jan. 3, 1871
118,245	Jones, Joseph, assignor to self and Peter Welch, New Orleans, La. Preserving wood	Aug. 22, 1871
111,943	Jones, J. Evans, Tidionte, Pa. Lock-stop cock	Feb. 21, 1871
112,048	Jones, Llewellyn E., and Theodore M. Barber, Syracuse, N. Y. Halter, buckle, and ring	Feb. 21, 1871
110,660	Jones, Marquis R., Walworth, Wis. Subsoil-plow	Jan. 3, 1871
5,378	Jones, Melville D., Boston, Mass. Iron post	Nov. 21, 1871
	(Design)	
	Jones, Melvin A. (<i>See Crane, Thomas, assignor.</i>)	
116,319	Jones, Nathaniel, Buffalo, N. Y. Railroad-car ventilator	June 27, 1871
119,233	Same.....Syracuse, N. Y. Truss	Sept. 26, 1871
111,944	Jones, Owen W., Columbus, Wis. Draught device for three horses	Feb. 21, 1871
113,060	Jones, Richard E., Goldsborough, N. C. Adjustable seat for vehicles	Mar. 28, 1871
110,661	Jones, Richard W., and John B. Baker, Syracuse, N. Y. Milking stool	Jan. 3, 1871
	Jones, Richard W., and Hiram R. Olmstead. (<i>See Eames, Horace N., assignor.</i>)	
	(Reissue)	
117,297	Jones, Rollin L., Cleveland, Ohio. Post-hole digger and ditcher	July 25, 1871
111,348	Jones, Solomon, New Orleans, La. Electro-motor for cars	Jan. 31, 1871
121,173	Same.....Electro-magnetic engine	Nov. 21, 1871
118,537	Jones, Solomon, assignor to self and E. D. Lawrence, New Orleans, La. Electro-motor for sewing-machines	Aug. 29, 1871
118,020	Jones, Stephen D., Blue Island, Ill. Lifting-jack	Aug. 15, 1871
117,293	Jones, Thomas, Washington, D. C. Submarine excavator	July 25, 1871
121,629	Jones, Thomas B., Hiawatha, Kans. Combined pulverizer and corn-marker	Dec. 5, 1871
	Jones, Thomas M. (<i>See Doan, Wallis & Moreland, assignors.</i>)	
111,349	Jones, Thomas O., Galesburgh, Ind. Pump	Jan. 31, 1871
120,882	Jones, William, Chelsea, Mass. Gas-burner regulator	Nov. 14, 1871
	Jones, William Brooks. (<i>See Brooks, William F., assignor.</i>)	
114,016	Jones, William F., Easton, Kans. Churn-dasher	April 25, 1871
115,323	Same.....same	May 30, 1871
120,883	Same.....Mechanical movement	Nov. 14, 1871
111,750	Jones, William G., Marshall, Tex. Washing-machine	Feb. 14, 1871
113,303	Jones, William G., and Samuel M. Rankin, Long Green, Md. Sash-holder	April 4, 1871
114,947	Jones, William M., Horicon, Wis. Base-burning stove	May 16, 1871
118,457	Jones, William R., Cambridge, Mass. Steam-boiler	Aug. 29, 1871
118,859	Jonson, Julius, Baltimore, Md. Pump	Sept. 12, 1871
119,364	Jonson, Julius, assignor to Joseph G. Harrison, New York, N. Y. Valve-arrangement for liquid-meters	Sept. 26, 1871
120,979	Jordan, Augustus, Washington, D. C. Deodorizing-apparatus for water-closets	Nov. 14, 1871
114,826	Jordan, George F., Gardiner, Me. Washing-machine	May 16, 1871
118,458	Jordan, Henry, assignor to Fred. W. Fuller, England. Construction of ships	Aug. 29, 1871
110,853	Jordan, Hugh P., Victoria, Tex. Sulky-cultivator	Jan. 10, 1871
115,868	Jordan, James C., assignor of one-fourth interest to Thomas Baxter, and one-half interest to J. W. Mathes, Watertown, Wis. Combined machine for cutting, punching, and bending tires	June 13, 1871
118,947	Jordan, John, England. Gas-furnace	Sept. 12, 1871
122,026	Jordan, John A., Shelbyville, Tenn. Churn	Dec. 19, 1871
113,434	Jordan, John Joseph, assignor to self and George T. Carter, Philadelphia, Pa. Steam-trap	April 4, 1871
122,027	Same.....Steam-generator	Dec. 19, 1871
113,435	Jordan, P. L., Lexington, Miss. Apparatus for operating churns	April 4, 1871
117,543	Jordan, Thomas and Waldo H., New York, N. Y. Carpet-beating machine	Aug. 1, 1871
116,320	Jordan, William A., New Orleans, La. Earth-closet	June 27, 1871
114,017	Jordan, William M., assignor to Charles D. Weld, Cambridge, Mass. Paint	April 25, 1871
121,381	Jordan, W. Thomas, Newnan, Ga. Cultivator	Nov. 28, 1871
112,148	Jordeson, Christopher Coatsworth, Montreal, Canada. Ship's windlass	Feb. 28, 1871
113,304	Jörgenson, Ib, and Rasmus Olson, Racine, Wis. Combined chair and step-ladder	April 4, 1871
5,236	Joseph, Nathan, San Francisco, Cal. Badge	Aug. 29, 1871
5,237	Same.....same	Aug. 29, 1871
	(Design)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,483	Joslyn, Benjamin F., assignor to Tomes, Melvain & Co., New York, N. Y. Re- volving fire-arm.....	May 30, 1871
113,893	Joyce, Humphreys and Anthony Ernest, Troy, N. Y. Dinner-pail.....	April 18, 1871
120,650	Joyce, Thomas, H., assignor to self and Jacob Cohen, New York, N. Y. Cat-ball.....	Nov. 7, 1871
4,630	Judd, Albert D., New Haven, Conn. Match-safe..... (Design).....	Feb. 7, 1871
112,717	Same..... Window-button.....	Mar. 14, 1871
114,152	Same..... Cupboard-latch.....	April 25, 1871
114,948	Same..... Bird-cage bracket.....	May 16, 1871
119,272	Same..... Flower-pot.....	Sept. 26, 1871
121,788	Same..... Match-box.....	Dec. 12, 1871
112,465	Judd, Edward M., New Haven, Conn. Twine-holder.....	Mar. 7, 1871
116,195	Judd, Frank, S., and John G. Powell, Philadelphia, Pa. Binder for sewing-ma- chines.....	June 20, 1871
5,252	Judd, Hubert, L., Brooklyn, N. Y. Picture-nail bead..... (Design).....	Sept. 5, 1871
119,273	Same..... Picture-nail.....	Sept. 26, 1871
119,463	Judd, James A., Newton, Mass. Trauson or king-bolt and rocker-plate for carriages.....	Oct. 3, 1871
	Judd, Jesse L., <i>et al.</i> (See Fisher, Willet, assignor.).....	
	Judd Manufacturing Company. (See Adt, John, assignor)..... (Two cases.)	
113,673	Judd, Morton, New Haven, Conn. Sash-holder.....	April 11, 1871
117,177	Judge, James, New York, N. Y. Wood-pavement.....	July 18, 1871
112,049	Judge, James L., Toronto, Canada. Steam-generator.....	Feb. 21, 1871
115,739	Judson, Agur, Newark, N. J. Oil-cake trimmer.....	June 6, 1871
117,641	Same..... Oil-press.....	Aug. 1, 1871
4,639	Same..... Mechanism for cutting and sewing oval seams..... (Reissue).....	Nov. 21, 1871
4,655	Judson, Julius, Rochester, N. Y. Governor for steam-engines.....	Dec. 5, 1871
	Same..... (See Cogswell, William A., assignor)..... (Two cases.)	
118,135	Judson, Lyman P., Rose, N. Y. Fence.....	Aug. 15, 1871
119,153	Judson, William B., Poughkeepsie, N. Y. Spring for mattresses, &c.....	Sept. 19, 1871
119,853	Same..... same.....	Oct. 10, 1871
110,854	Judson, William B., assignor to J. P. Nelson, jr., Poughkeepsie, N. Y. Bed-bot- tom.....	Jan. 10, 1871
110,662	Juhler, John J., Natrona, Pa. Apparatus for the manufacture of bromine.....	Jan. 3, 1871
	Jungerman, John, <i>et al.</i> (See Rost, Gotlieb, assignor.).....	
4,334	Jurgensen, Jules, Switzerland. Stem-setting watch..... (Reissue).....	April 11, 1871
118,615	Justin, Asahel A., Buffalo, N. Y. Hose-carriage.....	Aug. 29, 1871
120,980	Justison, Daniel C., Wilmington, Del. Railroad-car ventilator.....	Nov. 14, 1871
113,173	Justus, William K., assignor to Shoenberger & Co., Pittsburgh, Pa. Horseshoe- machine.....	Mar. 28, 1871
113,894	Kaestner, Charles, Chicago, Ill. Steam-bath.....	April 18, 1871
116,717	Same..... Grist-mill.....	July 4, 1871
4,691	Kagy, Henry, assignor to Thomas Potter, Son & Co., Philadelphia, Pa. Oil- cloth pattern..... (Design).....	Feb. 28, 1871
5,179	Same..... Oil-cloth..... (Design).....	Aug. 8, 1871
5,180	Same..... same..... (Design).....	Aug. 8, 1871
5,181	Same..... same..... (Design).....	Aug. 8, 1871
5,182	Same..... same..... (Design).....	Aug. 8, 1871
122,628	Kahuweiler, David, New York, N. Y. Feed-device for hulling-machines.....	Dec. 19, 1871
	Kahre, Edward. (See Gernert, Charles, assignor.).....	
	Kamman, Frank, and Christopher Ahrens. (See Ahrens & Kamman.).....	
111,350	Kamp, Louis, Vanderburgh County, Ind. Corn shelling and cleaning machine.....	Jan. 31, 1871
	Kane, Matthew T. (See Siefert, William, assignor.).....	
116,064	Kapple, John L., Chicago, Ill. Wall or wainscot chair.....	June 20, 1871
	Karr, H. C., <i>et al.</i> (See Lawrence, William H., assignor.).....	
110,855	Karr, Jacob, Washington, D. C. Needle setter and threader for sewing-ma- chines.....	Jan. 10, 1871
110,977	Karr, James M., Buffalo, N. Y. Attaching door-knobs to their spindles.....	Jan. 17, 1871
121,630	Kasson, Harvey Z., and Alexander J., Gloversville, N. Y. Glove.....	Dec. 5, 1871
113,061	Kast, Charles, Williamsport, Pa. Police-button.....	Mar. 28, 1871
117,784	Katz, Silas, Bossardsville, Pa. Hollow auger.....	Aug. 8, 1871
113,895	Kaufman, David W., Sterling, Ill. Double-tree.....	April 18, 1871
	Kaufman, Joseph, and J. James Hull. (See Hull & Kaufman.).....	
111,216	Kaufmann, Charles, Oconomowoc, Wis. Die for ornamenting sheet-metal.....	Jan. 31, 1871
	Kavanagh & Decker. (See Decker, Levi, assignor.).....	
113,527	Kavanagh, Michael S., Detroit, Mich. Chimney-top.....	April 11, 1871
117,544	Same..... Oil-can.....	Aug. 1, 1871
117,299	Kavanaugh, Luke, Waterford, N. Y. Burr for knitting-machines.....	July 25, 1871
5,046	Kay, Alexander, assignor to Mackellar, Smiths & Jordan, Philadelphia, Pa. Type..... (Design).....	June 27, 1871
118,021	Kay, John A., Saint Charles, Mo. Metallic column.....	Aug. 15, 1871
115,061	Kay, William V., Chicago, Ill. Check-hook and terret for harness.....	May 23, 1881
115,062	Same..... Harness-pad tree.....	May 23, 1871
115,617	Kaylar, Isaac, Jersey City, N. J. Soldering-apparatus.....	June 6, 1871
	Kayser, Augustus, and John C. Leistner. (See Leistner & Kayser.).....	
114,687	Kea, James E., Magnolia, N. C. Railroad-switch.....	May 9, 1871
112,149	Keagy, Abraham S., Haristown, Ill. Harrow and feed-roller.....	Feb. 28, 1871
111,550	Kean, William, Chicago, Ill. Coupling for shafts for mills.....	Feb. 7, 1871
111,945	Keane, Michael J. A., New York, N. Y. Compound for plating and polishing.....	Feb. 21, 1871
117,893	Keane, Patrick, assignor to self and Samuel Bilrough, Cohoes, N. Y. Self- acting jack for spinning.....	Aug. 8, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,528	Kearney, Francis, and Luke F. Tronson, Newark, N. J. Spark-arrester for locomotives	April 11, 1871
116,718	Kearns, John C., Lewistown, Pa. Fruit-gatherer	July 4, 1871
111,551	Kearsing, Edward G. and Leonzo, Spring Valley, N. Y. Preparation of platinum for filling teeth	Feb. 7, 1871
122,020	Same.....Process for preparing gold for dental purposes	Dec. 12, 1871
119,617	Keating, Daniel E., Oswego Falls, N. Y. Mechanical movement	Oct. 3, 1871
	Keating, Maurice J. (See Morgan, James B., assignor.)	
	Keech, Thomas, <i>et al.</i> (See Pickles, John, assignor.) (Reissue.)	
122,119	Keech, Thomas A. R., Bladensburg, Md. Calf-weaner. (Antedated Dec. 19, 1871)	Dec. 26, 1871
	Keefer, Samuel. (See Manson, George W., assignor.)	
115,740	Keegan, Vincent E., New York, N. Y. Process of reducing wood and other fibrous substances to pulp	June 6, 1871
112,718	Keeler, David L., Norwalk, Ohio. Brush	Mar. 14, 1871
120,250	Keeling, John, New York, N. Y. Gas-regulator	Oct. 24, 1871
118,622	Keely, John W., assignor to Nathan and Allen Middleton, jr., Philadelphia, Pa. Fly-wheel	Aug. 15, 1871
118,246	Keen, George, North McGregor, Iowa. Steam-boiler	Aug. 22, 1871
114,301	Keen, Morris L., assignor to self and Samuel A. Walsh, Jersey City, N. J. Apparatus for the manufacture of paper-pulp	May 2, 1871
117,427	Keen, Morris L., assignor to Samuel A. Walsh, Jersey City, N. J. Boiler for preparation of paper-stock from wood	July 25, 1871
119,464	Same.....Manufacture of paper-pulp	Oct. 3, 1871
119,465	Same.....Manufacture of paper-pulp or stock	Oct. 3, 1871
121,722	Keene, George A., assignor to self and Martin C. Heald, Lynn, Mass. Clothes-drier	Dec. 12, 1871
118,247	Keeney, Hamlin F., West Salem, Ohio. Thrashing-machine	Aug. 22, 1871
115,215	Keep, James M., New York, N. Y. Roach or bug trap	May 23, 1871
4,385	Keep, William J., Troy, N. Y. Base-burning stove (Reissue)	May 16, 1871
121,876	Same.....Cooking-stove	Dec. 12, 1871
121,877	Same.....Stove-pipe damper	Dec. 12, 1871
	Keeper, Samuel. (See Manson, George W., assignor.)	
112,466	Keports, Amos L., and William Yount, Littlestown, Pa. Clothes pin or clasp	Mar. 7, 1871
	Keeton, John J., and Ansell P. Rount. (See Rount & Keeton.)	
115,063	Keffer, Peter, assignor to self and John Droxel, Reading, Pa. Shutter-fastener	May 23, 1871
117,051	Kehl, Anthony, Indianapolis, Ind. Peg-sharpener	July 18, 1871
	Kehoe, John J. (See Dailey, Patrick, assignor.)	
	Keighley, Charles. (See Pitt, James, Joseph, Edward, and William, assignors.)	
120,074	Keiser, Joseph, York, Pa. Medical compound for cure of rheumatism, &c	Oct. 17, 1871
112,353	Keith, Aberdeen, North Bridgewater, Mass. Machine for cutting leather	Mar. 7, 1871
114,949	Keith, Arza B., Braintree, Mass. Machine for leveling boot-heel treads	May 16, 1871
	Same.....(See Packard, Henry F., assignor.) (Two cases.)	
	Same.....(See Linnell, William N., assignor.)	
	Same.....(See Reed, Timothy K., assignor.)	
117,300	Keith, Henry D. and John T., Mansfield, Ohio. Wagon-wheel	July 25, 1871
121,382	Keith, Horace M., Commerce, Mich. Plow. (Antedated Nov. 17, 1871)	Nov. 23, 1871
110,921	Keith, Jeremiah, Charlton, Mass. Hat	Jan. 10, 1871
112,719	Same.....Machine for making and setting blind-staples	Mar. 14, 1871
121,383	Keith, N. Shepard, New York, N. Y. Nickel-plating	Nov. 23, 1871
122,030	Kelleher, Patrick, and James C. Randlett, Bangor, Me. Moccasin boot and shoe	Dec. 19, 1871
	Keller, Adam. (See Bergman, William, assignor.)	
112,354	Keller, John F., and Nathaniel Sehner, Hagerstown, Md. Attaching knobs to their spindles	Mar. 7, 1871
4,629	Keller, John H., assignor through mesne assignments of part interest to Daniel F. Luse and J. F. Seiberling Reaper Company, Boalsburgh, Pa. Harvester-reel (Reissue)	Nov. 7, 1871
121,107	Keller, John H., Boalsburgh, and Daniel F. Luse, Centre Hall, Pa. Adjustable reel and cut off for harvesters	Nov. 21, 1871
115,484	Keller, John M., Evansville, Ind. Compound for staining wood	May 30, 1871
5,204	Keller, Joseph, Lowry's Station, Pa. Tongue-support (Design)	Aug. 15, 1871
116,321	Keller, Peter, assignor to self and Charles A. Martin, New York, N. Y. Gas-regulator. (Antedated June 17, 1871)	June 27, 1871
4,965	Kellett, Samuel, San Francisco, Cal. Center-piece (Design)	May 30, 1871
4,966	Same.....same (Design)	May 30, 1871
120,981	Kelley, Austin, New York, N. Y. Ladies' dress	Nov. 14, 1871
	Kelley, Ebenezer L. (See Brown, George A., assignor.)	
4,375	Kelley, Edward G., New York, N. Y., and Augustus H. Tait, Jersey City, N. J., assignors through mesne assignments to Charles Pratt. Process and apparatus for distilling, separating, and purifying petroleum (Reissue)	May 9, 1871
115,064	Kelley, Edward Watson, Scotland. Machine for making horseshoe-nails	May 23, 1871
119,854	Same.....Horse-nail machine	Oct. 10, 1871
119,033	Kelley, Francis M., Hart County, Ky. Brake for wagons	Sept. 19, 1871
114,302	Kelley, Henry, and William H. Locke, Boston, Mass. Lamp-collar	May 2, 1871
112,150	Kelley, Lewis, assignor to self and Joel Andrews, Saranac, Mich. Animal-poke	Feb. 28, 1871
	Kelley, Libni, and Elmer Hause. (See Hause & Kelley.)	
	Kellogg, Ansel N. (See Huntington, William S., assignor.)	
110,978	Kellogg, Daniel J., Toledo, Ohio. Fountain paint-brush	Jan. 17, 1871
113,305	Same.....same	April 4, 1871
114,827	Kellogg, Dennis A., Valparaiso, Ind. Harvester-rake	May 16, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,601	Kellogg, Dennis A., Valparaiso, Ind. Harvester.....	July 4, 1871
114,688	Kellogg, Erastus H., Mukwonago, Wis. Grain cleaner and scourer.....	May 9, 1871
121,288	Kellogg, Francis D., and George N. Ives, New Haven, Conn. Covered bucket..	Nov. 28, 1871
119,521	Kellogg, Henry, Milford, Conn. Machine for rolling tapering forms.....	Oct. 3, 1871
4,631	Kellogg, J. Dwight, jr., Northampton, Mass. Dove-tail..... (Design) ..	Feb. 7, 1871
112,050	Kellogg, James Franklin, North Bridgewater, Mass. Tuck-marker for sewing-machines.....	Feb. 21, 1871
117,642	Same..... Stove-pipe cleaner.....	Aug. 1, 1871
117,428	Kellogg, Luke L., Leon, N. Y. Butter-worker.....	July 25, 1871
	Kellogg, W. W. (See Watrous, Richard N., assignor.)	
116,837	Kelly, Daniel, Muskegon, Mich. Boring-bit.....	July 11, 1871
117,545	Kelly, Ebenezer L., Reading, Mich. Grain-separator.....	Aug. 1, 1871
	Kelly, I. Hal. (See Maxon, Thomas, assignor.)	
119,274	Kelly, James C., Groveland, N. Y. Water-wheel.....	Sept. 26, 1871
118,616	Kelly, James M., Ellison, Ill. Field-roller.....	Aug. 29, 1871
121,524	Kelly, John S., New York, N. Y. Pavement.....	Dec. 5, 1871
116,322	Kelly, Peter J., and Elizabeth Thompson, New York, N. Y. Rubber compound for bearings, &c. (Antedated May 29, 1871).....	June 27, 1871
112,467	Kelly, Samuel Edward, Philadelphia, Pa. Putting up hams.....	Mar. 7, 1871
120,819	Kelly, Solomon W., Nashville, Tenn. Rotary pump.....	Nov. 14, 1871
112,813	Kelly, Washington J., Commerce, Mich. Bee-hive.....	Mar. 21, 1871
	Kelly, William, Louisville, Ky. Manufacture of iron..... (Extension) ..	June 15, 1871
122,255	Same..... Making steel castings.....	Dec. 26, 1871
121,174	Kelsey, Cyrus M., Mount Vernon, Ohio. Vulcanizing rubber for dental plates, &c	Nov. 21, 1871
	Kelsey, H. C. (See Gillam, John W., assignor.)	
	Kelsey, Mary L., administratrix. (See Gale, William S.)..... (Extension.)	
	Kelso, George R. (See Alcorn, James, assignor.)	
	Kelty, Gibbons L. (See Lloyd, William, assignor.)	
111,751	Kelty, Richard A., Lambertville, N. J. Rubber roller for paper-machines.....	Feb. 14, 1871
111,459	Kemmer, Charles T., Cleveland, Ohio. Coating and decorating walls, ceilings, &c	Jan. 31, 1871
	Kemon, Solon C., et al. (See Darrell, Armistead M., assignor.)	
111,065	Kemper, Christoph, Herman, Mo. Feed-cutter.....	Jan. 17, 1871
114,568	Kemper, Simon, Berger, Mo. Saw-mill.....	May 9, 1871
118,023	Kendal, Kendrick, and Lewis Henry Starke, assignors to Samuel C. Forsaith, Goffstown, N. H. Blind-slat machine.....	Aug. 15, 1871
116,838	Kendall, Francis B., Monmouth, Ill. Corn-ground marker.....	July 11, 1871
114,445	Kendall, George N., Wooster, Ohio. Sash-holder.....	May 2, 1871
	Kendall, John J., and William C. Baine. (See Baine & Kendall.)	
4,514	Kendall, John S., assignor through mesne assignments to the National Cattle-Car Company, Saint Louis, Mo. Railway stock-car..... (Reissue) ..	Aug. 15, 1871
4,650	Kendrick, Hiland H., Fulton, N. Y. Flower-stand.....	Feb. 14, 1871
	Kendrick, John. (See Crowell, John H., assignor.)	
115,741	Keniston, Charles, assignor to self, William Butterfield, and Charles E. Woodman, Somerville, Mass. Welt and strap cutter.....	June 6, 1871
116,323	Same..... Punching-machine.....	June 27, 1871
111,460	Kennard, Amos, Clearfield, Pa. Cant-hook.....	Jan. 31, 1871
113,306	Kennedy, Albert H., Oberlin, Ohio. Cultivator.....	April 4, 1871
5,183	Kennedy, Charles, Philadelphia, Pa. Slate pencil sharpener.....	Aug. 8, 1871
116,839	Kennedy, Charles W., Brooklyn, E. D., N. Y. Drain-pipe machine.....	July 11, 1871
110,856	Kennedy, De Lancy, New York, N. Y. Device for securing the tines of hay-tedders.....	Jan. 10, 1871
114,689	Kennedy, Edward S., Buchanan, Pa. Device for securing collars to lamps, &c..	May 9, 1871
118,948	Kennedy, John P., New York, N. Y. Wrought-iron column.....	Sept. 12, 1871
119,618	Kennedy, Martin, Chicago, Ill. Combined plow and stock for cultivators.....	Oct. 2, 1871
113,529	Kennedy, Michael, New York, N. Y. Platform-scale.....	April 11, 1871
121,631	Kennedy, Simon H., Jamestown, N. Y. Medical extract from hemlock-bark...	Dec. 5, 1871
122,256	Kennedy, Theodore W., New York, N. Y. Presser-foot lifter for sewing-machines.....	Dec. 26, 1871
112,814	Kennedy, William C., Commerce, Mich. Curtain-fixture.....	Mar. 21, 1871
4,992	Kennedy, William T., New York, N. Y. Fork or spoon handle..... (Design) ..	June 13, 1871
120,281	Kenney, Lester Bradner, Charlotte, Mich. Shutter-worker.....	Oct. 24, 1871
114,446	Kenney, Thomas, Lynn, Mass. Awl.....	May 2, 1871
120,563	Kenny, Nicholas, assignor to self and Frederick A. Kurspeedt, New York, N. Y. Lock for spool-holders.....	Oct. 31, 1871
111,217	Kent, Hiram J., Palmyra, N. Y. Potato-planter.....	Jan. 24, 1871
118,560	Kent, Lawrence W., Cleveland, Ohio. Oil-can.....	Sept. 12, 1871
121,632	Kent, Robert, Brooklyn, N. Y. Device for pointing wire.....	Dec. 5, 1871
117,894	Kent, Trumble, and James S. Barker, Waukegan, Ill. Door-hanger.....	Aug. 8, 1871
	Kent, William J., and Charles E. Bacon. (See Bacon & Kent.)	
120,199	Kenworthy, James H., West Point, Ind. Car-coupling.....	Oct. 24, 1871
115,618	Kenworthy, William, and John H. Pollitt, Birmingham, Pa. Mode of lubricating axles and journals.....	June 6, 1871
112,928	Kenyon, Charles P., assignor to self and J. W. Sharp, Selma, N. C. Fire-escape	Mar. 21, 1871
	Kenyon, Edgar. (See Cummings, Patrick H., assignor.)	
118,248	Kenyon, John J., Boston, Mass., and Hazen P. Huntoon, assignors to John J. Kenyon, Cambridge, Mass. Washing-machine.....	Aug. 22, 1871
113,774	Kenyon, Orlando L., and Edwin B. Palmer, Rome, N. Y. Wash-boiler.....	April 18, 1871
113,174	Kenyon, Silas K., assignor to self and William D. Vernam, Greenville, R. I. Corn picking and husking machine.....	Mar. 28, 1871
121,384	Same..... same.....	Nov. 28, 1871
112,602	Kenyon, William G., Wakefield, R. I. Hay-tedder.....	Mar. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,175	Kenyon, William G., Wakefield, R. I. Harvester-cutter.....	Mar. 28, 1871
117,178 Same..... Cutting-apparatus for harvesters.....	July 18, 1871
116,528	Keppel, William H., and Henry Huffsey, Tiffin, Ohio. Vehicle.....	June 27, 1871
115,065	Keppering, Samuel B., and Thomas B. Kreiter, Neffsville, Pa. Artificial limb.....	May 23, 1871
122,257	Kerigan, Michael J., Boston, Mass. Mechanism for reed-organ swell.....	Dec. 26, 1871
116,196	Kern, Philip, Dayton, Ohio. Door and gate spring.....	June 20, 1871
121,460	Kernaul, Michael H., Prussia. Sewing-machine.....	Dec. 5, 1871
110,922	Kerns, John F., Baltimore, Md. Street-lamp.....	Jan. 10, 1871
	Kerper, John. (<i>See</i> Barr, Henry H., assignor.)	
	Same.... (<i>See</i> Sullenberger, William H., assignor.)	
113,062	Kerr, David, and Asa E. Hovey, San Francisco, Cal. Skate.....	Mar. 23, 1871
117,643	Same..... Parlor-skate.....	Aug. 1, 1871
118,805	Kerr, Hugh S., Philadelphia, Pa. Blacking brush and box combined.....	Sept. 12, 1871
4,632	Kerr, Hugh S., assignor to Israel Foster, Philadelphia, Pa. Carpet-pattern. (Design).....	Feb. 7, 1871
4,633	Kerr, Hugh S., assignor to Israel Foster, Philadelphia, Pa. Carpet-pattern. (Design).....	Feb. 7, 1871
4,651	Kerr, Hugh S., assignor to Israel Foster, Philadelphia, Pa. Carpet-pattern. (Design).....	Feb. 14, 1871
4,652	Kerr, Hugh S., assignor to Israel Foster, Philadelphia, Pa. Carpet-pattern. (Design).....	Feb. 14, 1871
4,887	Kerr, Hugh S., assignor to Israel Foster, Philadelphia, Pa. Carpet-pattern. (Design).....	May 9, 1871
4,925	Kerr, Hugh S., assignor to Israel Foster, Philadelphia, Pa. Carpet-pattern. (Design).....	May 23, 1871
4,926	Kerr, Hugh S., assignor to Israel Foster, Philadelphia, Pa. Carpet-pattern. (Design).....	May 23, 1871
5,108	Kerr, Hugh S., assignor to Israel Foster, Philadelphia, Pa. Carpet-pattern. (Design).....	July 11, 1871
5,205	Kerr, Hugh S., assignor to Israel Foster, Philadelphia, Pa. Carpet-pattern. (Design).....	Aug. 15, 1871
4,950	Kerr, William, assignor to William Hunter & Sons, Philadelphia, Pa. Carpet-pattern (Design).....	May 30, 1871
4,951	Kerr, William, assignor to William Hunter & Sons, Philadelphia, Pa. Carpet-pattern (Design).....	May 30, 1871
4,952	Kerr, William, assignor to William Hunter & Sons, Philadelphia, Pa. Carpet-pattern (Design).....	May 30, 1871
5,139	Kerr, William, assignor to John Gay, Philadelphia, Pa. Carpet-pattern. (Design).....	July 25, 1871
5,184	Kerr, William, assignor to John Gay, Philadelphia, Pa. Carpet-pattern. (Design).....	Aug. 8, 1871
115,324	Kerr, William, jr., Boston, Mass. Check for watchmakers' lathes.....	May 30, 1871
113,896	Kessberger, August, Springfield, Ill. Wagon-axle.....	April 18, 1871
116,324	Kesseler, Frank, San Francisco, Cal. Furnace for roasting ore.....	June 27, 1871
	Ketcham, E. & Co. (<i>See</i> Hodgetts, Charles, assignor.)	
5,030	Ketcham, George W., assignor to E. Ketcham & Co., New York, N. Y. Cake-pan.....	June 20, 1871
120,442	Ketcham, Horace C. and Willie W., Newark, N. J. Dinner-pail.....	Oct. 31, 1871
121,633	Ketchen, Thomas, New York, N. Y. Chimney-top.....	Dec. 5, 1871
121,789	Ketchum, Amos, Estherville, Iowa. Pitman-connection.....	Dec. 12, 1871
121,053	Ketchum, Seymour, Macon, Ill. Cooking-stove.....	Nov. 21, 1871
4,484	Ketchum, William F., assignor through mesne assignments to the Ketchum Harvesting-Machine Company, Buffalo, N. Y. Harvester.....	(Reissue)..... July 25, 1871
4,672	Same..... Harvester.....	(Reissue)..... Dec. 12, 1871
4,673	Same..... same.....	(Reissue)..... Dec. 12, 1871
	Keys, Daniel A., and Eli R. Hall. (<i>See</i> Hall & Keys.)	
112,720	Keys, Eben W., Charlestown, Mass. Treadle-motion.....	Mar. 14, 1871
150,200	Keys, Eben W., Charlestown, Mass., and Charles K. Bradford, Boston, Mass. Treadle-motion.....	Oct. 24, 1871
121,385	Keys, Winfield S., and Albert Arents, Eureka, Nev. Furnace for smelting lead and other ores.....	Nov. 28, 1871
4,816	Keyser, John H., New York, N. Y. Stove.....	(Design)..... April 18, 1871
4,817	Same..... Oven.....	(Design)..... April 18, 1871
114,018	Same..... Cooking-stove.....	April 25, 1871
117,546	Kibler, Frederick, Baltimore, Md. Combined rubber and copper-wire joint for pipe-coupling.....	Aug. 1, 1871
119,772	Kieherer, Carl R., assignor to Doscher & Co., Brooklyn, N. Y. Soap.....	Oct. 10, 1871
110,857	Kidd, Joshua, New York, N. Y. Apparatus for generating and burning vapor from hydrocarbons.....	Jan. 10, 1871
118,459	Same..... Apparatus for the manufacture of hydrocarbon-gas.....	Aug. 29, 1871
119,034	Same..... Manufacture of illuminating-gas.....	Sept. 19, 1871
4,706	Kidd, William, Duncan's Mills, Cal. Saw.....	(Design)..... Mar. 14, 1871
116,197	Kidder, Jerome, New York, N. Y. Sponge-holder for electro-medical apparatus.....	June 20, 1871
116,451	Same..... Galvanic battery.....	June 27, 1871
119,855	Same..... same.....	Oct. 10, 1871
120,750	Same..... Battery-current manipulator.....	Nov. 7, 1871
122,031	Same..... Needle-electrode for electro-surgical uses.....	Dec. 19, 1871
117,301	Kidder, Moses W., Lowell, Mass. Paint.....	July 25, 1871
120,884	Kidwell, George W., Elwood, Ind. Telegraph-insulator.....	Nov. 14, 1871
	Kieffer, John. (<i>See</i> Guider, John W., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Kiengle, Jacob, and Charles Diebold. (<i>See Obernesser, Jacob, assignor.</i>)	
112,051	Kievlan, James, assignor to self and William Wisdom, Chicago, Ill. Lathe	Feb. 21, 1871
116,325	Kiff, Thomas F., Fairbury, Ill. Hand-truck	June 27, 1871
	Kihlberg, John, and Michael Mesmer. (<i>See Stanton, Joseph, assignor.</i>)	
116,602	Kikendall, John N., jr., Virginia, Ill. Machine for laying out sash	July 4, 1871
	Kile, Jasper, <i>et al.</i> (<i>See Short, Short, Short & Kile.</i>)	
110,766	Killam, Henry, New Haven, Conn. Carriage-axle	Jan. 3, 1871
	Kimball, Austin G. (<i>See Comins, John M., assignor.</i>)	
113,775	Kimball, Charles P., Portland, Me. Shifting-top for basket-phaetons	April 18, 1871
	Kimball, Daniel A. (<i>See Halladay, William H., assignor.</i>)	
111,752	Kimball, Eben A., Abingdon, Mass. Sewing-machine	Feb. 14, 1871
	Kimball, Frank T. (<i>See Bradley, John, assignor.</i>)	
114,303	Kimball, Frederick J., Philadelphia, Pa. Machine for crushing and grinding rock, phosphates, &c.	May 2, 1871
114,304	Same.....Apparatus for drying phosphates	May 2, 1871
118,539	Same.....Machine for making spikes	Aug. 29, 1871
	Kimball, George P. (<i>See Bachelier, William, assignor.</i>)	
121,634	Kimball, Hervey, Poughkeepsie, N. Y. Stenciling apparatus	Dec. 5, 1871
112,256	Kimball, Hiram, Randolph, Vt. Low-water indicator	Feb. 28, 1871
114,305	Kimball, James M., Woodstock, Ill. Washing-machine	May 2, 1871
117,644	Kimball, John, Boston, Mass. Tension-apparatus for wax-thread sewing- machine	Aug. 1, 1871
114,306	Kimball, John J., Naperville, Ill. Churn	May 2, 1871
118,723	Same.....Mechanical movement	Sept. 5, 1871
	Kimball, Lewis, jr. (<i>See Cummings, Daniel M., assignor.</i>)	
	Kimball, Luther E. (<i>See Hayward, Samuel, assignor.</i>)	
110,858	Kimball, Matthew, assignor to self and James Garvey, San Francisco, Cal. Roller-skate	Jan. 10, 1871
	Kimball, Reuel W., <i>et al.</i> (<i>See Close, Walter R., assignor.</i>)	
116,065	Kimball, William H., Boston, Mass. Refining iron and steel	June 20, 1871
4,634	Kimbel, Anton, New York, N. Y. Chair	Feb. 7, 1871
4,635	Same.....same	Feb. 7, 1871
118,861	Kimberly, Lewis A., New Haven, Conn. Boys' stilt	Sept. 12, 1871
119,986	Kimble, Thomas V., Indianapolis, Ind. Garden-hoe	Oct. 17, 1871
111,650	Kindel, James, Wilmington, Ohio. Feed-water apparatus	Feb. 7, 1871
	King, Abraham A., <i>et al.</i> (<i>See Beebe, Baynes & King.</i>)	
115,216	King, Abraham B., Camden, Ohio. Fire-kindler	May 23, 1871
112,815	King, Alexander, Philadelphia, Pa. Clothes-wringer	Mar. 21, 1871
	King, Alonzo P. B. (<i>See Taylor, Zalmon A., assignor.</i>)	
120,751	King, Benjamin F., Annapolis Junction, Md. Paint	Nov. 7, 1871
120,075	King, Charles A., Springfield, Mass. Means for uncapping cartridges	Oct. 17, 1871
4,457	King, Ferdinand, Richmond, Va. Manufacture of illuminating-gas... (Reissue)	July 4, 1871
117,645	Same.....Washington, D. C. Manufacture of illuminating-gas... (Reissue)	Aug. 1, 1871
	King, Henry, <i>et al.</i> (<i>See Rank, King & Sharp.</i>)	
	Same.....same	(Reissue.)
112,151	King, Henry James, and Daniel Charles Mulock, Middletown, N. Y. Steam and water engines	Feb. 28, 1871
120,076	King, Hillery R., Poplar Bluff, Ark. Well-auger..... (Antedated Oct. 14, 1871)	Oct. 17, 1871
115,066	King, Homer, A., New York, N. Y. Machine for making comb-guides for bee- hives	May 9, 1871
121,108	King, Jesse, Oswego, N. Y. Excavating-cart	Nov. 21, 1871
113,530	King, Lewis, East Cleveland, Ohio. Lightning-rod	April 11, 1871
4,355	King, Lewis, assignor of two-thirds interest to Newell E. Smith, East Cleveland, Ohio. Lightning-rod	April 25, 1871
112,603	King, Osmau S., Painesville, Ohio. Washing-machine	Mar. 14, 1871
113,531	King, Phineas F. and Edwin A., Saint Louis, Mo. Sawing-machine	April 11, 1871
4,442	King, Robert, assignor to T. Prosser & Son, Brooklyn, N. Y. Boiler-flue brush	June 27, 1871
111,651	King, Sampson B., Starkville, Ga. Plow. (Antedated Feb. 3, 1871)	Feb. 7, 1871
	King, Samuel, and George R. Long. (<i>See Long & King.</i>)	
112,052	King, Sidney D., Middletown, N. Y. Dumping-car	Feb. 21, 1871
119,856	Same.....same	Oct. 10, 1871
112,355	King, Theodore E., Boston, Mass. Miter-machine	Mar. 7, 1871
	King, Walter D., and Algernon S., <i>et al.</i> (<i>See Sebring, Thompson C., assignor.</i>)	
114,569	King, William C., Pittsburgh, Pa. Machine for operating glass-molds	May 9, 1871
4,571	Same.....same	Sept. 26, 1871
4,753	King, William C., assignor to King, Son & Co., Pittsburgh, Pa. Ornamentation of table-glassware	April 4, 1871
111,946	King, William Haskell, Newark, N. J., and Jared Rowland, Williamsburgh, N. Y., assignors to William Haskell King. Sash-holder	Feb. 21, 1871
114,690	King, William R., Shelbyville, Ky. Bee-hive	May 9, 1871
4,553	Kingsland, Allen B., <i>et al.</i> (<i>See Sparks, John, assignor.</i>)	
	Kingsland, Samuel, assignor to Henry Ocorr, Council Bluffs, Iowa. Wood-bend- ing machine	Sept. 12, 1871
115,325	Kinne, Benjamin, Syracuse, N. Y. Washing-machine	May 30, 1871
	Kinne, Charles W. (<i>See Langdon, Orrin H., assignor.</i>)	(Two cases.)
120,386	Kinne, Erastus M., Cuba, N. Y. Snap-hook	Oct. 31, 1871
120,588	Kinne, George O., assignor to Colt's Patent Fire-Arms Manufacturing Company, Hartford, Conn. Operating machine-guns	Nov. 7, 1871
18,024	Kinney, William E., Upper Sandusky, Ohio. Wash-boiler	Aug. 15, 1871
12,152	Kinney, Jesse, assignor to self and Cyrus Kinney, London, Canada. Stubble- attachment for plows	Feb. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,604	Kinsey, Joseph, and James Tranter. (<i>See</i> Tranter & Kinsey.)	
111,652	Kinsey, Moses, Newark, N. J. Skate	Mar. 14, 1871
118,025	Kinsey, Oliver B., Newark, N. J. Ice-crusher. (Antedated Jan. 29, 1871)	Feb. 7, 1871
116,452	Kinsey, William, Cincinnati, Ohio. Composition-roofing	Aug. 15, 1871
118,249	Kinsman, John H., Salem, Mass. Door-lock	June 27, 1871
112,816	Kintz, George W., Rochester, N. Y. Game-board	Aug. 22, 1871
115,619	Kintz, Joseph, assignor to self and P. J. Clark, West Meriden, Conn. Drawer-pull	Mar. 21, 1871
5,185	Same.....Caster	June 6, 1871
119,365	Same.....Drawer-pull.....(Design)	Aug. 8, 1871
119,773	Same.....Melting copper	Sept. 25, 1871
5,428	Same.....Chaudelier-center	Oct. 10, 1871
4,455	Same.....Match-box.....(Design)	Dec. 19, 1871
112,005	Kinyon, Alonzo, Amboy, Ill. Corn-cultivator.....(Reissue)	July 25, 1871
	Kinyon, David R., assignor to self and Job C. Kinyon, Raritan, N. J. Harvester rake	Mar. 14, 1871
111,351	Kinyon, L. C. (<i>See</i> Temple, James, assignor.)	
111,352	Kirby, Josiah, Cincinnati, Ohio. Bung-extractor	Jan. 31, 1871
119,154	Same.....same	Jan. 31, 1871
4,754	Kircher, Julius, New York, N. Y. Ink for printing	Sept. 19, 1871
4,755	Kirchner, William M., Pittsburgh, Pa. Jelly-glass.....(Design)	April 4, 1871
4,756	Same.....same.....same	April 4, 1871
4,757	Same.....same.....same	April 4, 1871
4,758	Same.....same.....same	April 4, 1871
4,759	Same.....same.....same	April 4, 1871
115,326	Same.....Glass jar	May 30, 1871
5,246	Same.....Jelly-glass.....(Design)	Aug. 15, 1871
116,066	Kirk, John L., Mattoon, Ill. Magazine fire-arm	June 20, 1871
119,522	Kirk, Joseph, assignor to George Jordan Firmin, England. Alarm-apparatus for steam-boilers	Oct. 3, 1871
116,198	Kirk, Robert, Clarksville, Ohio. Violin tail-piece	June 20, 1871
112,153	Kirk, Solomon W., Philadelphia, Pa. Separating metal from ore	Feb. 28, 1871
4,314	Kirk, Solomon W., assignor of part interest to Henry Thomas, Philadelphia, Pa. Manufacture of steel.....(Reissue)	Mar. 28, 1871
112,468	Kirk, Thomas A., Kansas City, Mo. Lime-kiln	Mar. 7, 1871
112,257	Kirk, William A. L., Hamilton, Ohio. Head-block for saw-mills	Feb. 28, 1871
	Kirk, William A. L., and Martin R. Lemman. (<i>See</i> Lemman & Kirk.)	
111,353	Kirkham, George B., New York, N. Y. Car-starter	Jan. 31, 1871
113,776	Same.....Treadle	April 15, 1871
121,525	Same.....Foot-power	Dec. 5, 1871
4,554	Kirkham, William, Springfield, Mass. Egg-steamer.....(Design)	Jan. 3, 1871
120,282	Kirkup, Lancelot, Brooklyn, N. Y. Bridge	Oct. 24, 1871
113,003	Kirkwood, Alexander, Toronto, Canada. Meat-biscuit	Mar. 28, 1871
118,460	Same.....Jackson County, Miss. Log-cart	Aug. 22, 1871
118,862	Kirkwood, Henry, assignor to Alexander Kirkwood, Americus, Miss. Revolving steel-yard-beam	Sept. 12, 1871
113,777	Kirkwood, Milton W., and Solomon H. Riley, Iowa City, Iowa. Mop	April 1, 1871
121,945	Kirsch, Ernst, South Amherst, Mass. Rocking horse	Dec. 12, 1871
	Kissam, William Wilmer, et al. (<i>See</i> Winant, William K., assignor.)	
	Kistler, Willoughby F., and Joseph H. Dennis. (<i>See</i> Dennis & Kistler.)	
	Kitchell, David T., and Orlando McKnight Reynolds. (<i>See</i> Reynolds & Kitchell.)	
117,429	Kitchen, Ebenezer D., Pineville, Pa. Washing-machine	July 25, 1871
111,947	Kisson, Richard, Lowell, Mass. Securing steel or iron pins in wood	Feb. 21, 1871
116,840	Same.....Feed-regulating mechanism of cotton-lappers	July 11, 1871
116,841	Same.....Waste-picker	July 11, 1871
119,466	Kittinger, Levi, Massillon, Ohio. Iron-arch bridge	Oct. 3, 1871
118,724	Kettelman, William W., Bloomfield, Iowa. Trace-buckle	Sept. 5, 1871
112,154	Kleemann, Carl J. H. F., assignor of one-half interest to Arnold C. Franck, New York, N. Y. Composition for polishing	Feb. 28, 1871
	Klein, J. Augustus, and Ferdinand C. Schoenstein. (<i>See</i> Schoenstein & Klein.)	
113,176	Klein, Rudolph C., Saint Louis, Mo. Composition for lubricating journals	Mar. 28, 1871
122,032	Kleiner, Gott-Hard, Georgetown, Mo. Apparatus for distilling spirits	Dec. 19, 1871
119,366	Klepper, Adiel H., Muscatine, Iowa. Bee-hive	Sept. 26, 1871
	Kley, John A., and David M. Ford. (<i>See</i> Ford & Kley.)	
117,735	Klinck, Frederick, assignor to John Weidig and Charles Yoekel, Philadelphia, Pa. Glass-molders' press	Aug. 8, 1871
121,109	Kline, Aaron K., Readington, N. J. Steam-engine governor	Nov. 21, 1871
116,199	Klingbeil, William, Champaign City, Ill. Medical compound, or eye-balsam	June 20, 1871
121,110	Klinzenburg, Adolph, assignor to Herman C. Drexel and D. Lammont, jr., Baltimore, Md. Mechanical-dice apparatus	Nov. 21, 1871
114,950	Klinkerhues, Wilhelm, Prussia. Apparatus for igniting gas and other lights	May 16, 1871
111,753	Klotz, Philip, assignor to Bentley C. Bibb, Baltimore, Md. Base-burning fire-place heater	Feb. 14, 1871
118,725	Knapp, A. Hayden, Newton Centre, Mass. Curtain-fixture	Sept. 5, 1871
116,453	Knapp, George S., Winona, Minn. Machine for joining tubular lighting-rods	June 27, 1871
119,987	Same.....Machine for making lightning rods	Oct. 17, 1871
	Knapp, George S., and David A. Foot. (<i>See</i> Foot & Knapp.)	
122,255	Knapp, John, Prattsburgh, N. Y. Preserving eggs	Dec. 26, 1871
112,469	Knapp, John G., and John F. Robertson, assignor of one-third interest to James H. Holly, Warwick, N. Y. Fastening for seats for wagons or sleighs	Mar. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Knapp, John G., <i>et al.</i> (See Robertson, John F., assignor.)	
121,054	Knapp, Joseph, Coloma, Mich. Platform or handle for fruit-baskets.....	Nov. 21, 1871
114,153	Knapp, Judson N., Syracuse, N. Y. Milking-stool.....	April 23, 1871
	Knapp, Lucien. (See Getty, Henry, assignor.)	
4,443	Knapp, Myron H., assignor of one-half interest to Edward F. York, Fulton, N. Y. Fluting and sad iron..... (Reissue)	June 27, 1871
114,828	Knapp, Robert P., New York, N. Y. Umbrella.....	May 16, 1871
122,120	Knauss, Thomas E., Zaleski, Ohio. Stock-car.....	Dec. 26, 1871
	Kneeland, Orlando A. (See Wright, Daniel, assignor.)	
120,283	Kuell, George, Philadelphia, Pa. Sofa-bed.....	Oct. 24, 1871
117,646	Knetzer, James A., Fillmore, Ind. Corn-planter.....	Aug. 1, 1871
112,817	Knickerbocker, Darius and Samuel, Allegan, Mich. Shaft-coupling.....	Mar. 21, 1871
117,786	Kuiffen, Daniel S., West Camden, N. Y. Plug-cutter for wood-workers.....	Aug. 8, 1871
112,721	Knight, Ebenezer, assignor to self, R. S. Mitchell, and Edward S. Compton, Elizabeth, Ind. Machine for cutting splints.....	Mar. 14, 1871
114,570	Knight, George William, and George Draper, Hopedale, Mass. Spindle-step.....	May 9, 1871
	Knight, Henry, <i>et al.</i> (See Goodwin, William, assignor.)	
120,443	Knight, Hiram, Westminster, Mass. Clothes-drier.....	Oct. 31, 1871
119,367	Knight, Jacob B., Detroit, Mich. Cotton press.....	Sept. 26, 1871
	Knight, Joseph H. (See Denison, Wellington, assignor)..... (Design.)	
115,742	Knight, Josiah J., Long Point, Ill. Fence.....	June 6, 1871
116,842	Knight, Margaret E., Boston, Mass. Paper-bag machine.....	July 11, 1871
114,447	Knight, Silas P., Brooklyn, N. Y. Electrottype-mold.....	May 2, 1871
119,368	Knight, William, Covington, Ky. Slate-frame.....	Sept. 26, 1871
	Kniseley, O. F. (See Segar, Garret, assignor.)	
115,067	Knoche, August, Saint Louis, Mo. Meat-safe.....	May 23, 1871
116,326	Knoche, John, Cincinnati, Ohio. Fancet.....	June 27, 1871
113,064	Knock, Edwin, Vermont, Ill. Washing-machine.....	Mar. 28, 1871
116,327	Knowland, William, and Kearnes Collings, Henryville, Ind. Seed-planter.....	June 27, 1871
118,026	Knowles, Collius, Boston, Mass. Wash-bowl.....	Aug. 15, 1871
119,035	Knowles, Daniel M., New Bedford, Mass. Metal-binding for oil-cloth, &c.....	Sept. 19, 1871
116,965	Knowles, David, Philadelphia, Pa. Hay and cotton press.....	July 11, 1871
114,307	Knowles, Jacob Haskell, Lawrence, Mass. Weft-fork for looms.....	May 2, 1871
113,897	Knowles, Lucius J., Worcester, Mass. Steam-pump.....	April 18, 1871
114,506	Same..... Steam-pumping engine.....	May 2, 1871
114,507	Same..... Steam-pump.....	May 2, 1871
116,454	Same..... Pump.....	July 27, 1871
118,949	Same..... Blowing-engine.....	Sept. 12, 1871
122,259	Same..... Screw-press.....	Dec. 26, 1871
116,455	Knowles, Wilson W., Plantsville, Conn. Die for forming carriage-clips.....	June 27, 1871
117,179	Same..... Body-loop for carriages.....	July 18, 1871
116,456	Knowles, Wilson W., and Le Roy S. White, Plantsville, Conn. Die for forming carriage-clips.....	June 27, 1871
118,250	Knowlton, Albion, Boston, Mass. Machine for distributing nails.....	Aug. 22, 1871
112,470	Knowlton, George, assignor of one-half interest to N. Haynes, Johnstown, Pa. Potato-planter.....	Mar. 7, 1871
120,820	Knowlton, John C., Providence, R. I. Ratlin-attachment for rigging.....	Nov. 14, 1871
115,217	Knowlton, John J., Saccarappa, Me. Turbine water-wheel.....	May 23, 1871
119,774	Knox, James W., Winona, Miss. Horse-power.....	Oct. 10, 1871
117,430	Knox, Richard F., and Joseph Osborn, San Francisco, Cal. Furnace for roasting ores. (Antedated July 5, 1871).....	July 25, 1871
119,467	Knoll, John, and Jason P. Pence, Paris, Ohio. Corn-planter.....	Oct. 3, 1871
	Knuttsford, William, jr., <i>et al.</i> (See Thurston, Levi P., assignor.)	
4,636	Koch, Christian J., assignor to John Bromley & Sons, Philadelphia, Pa. Carpet-pattern..... (Design)	Feb. 7, 1871
118,950	Koch, George, Cass, Pa. Drilling-machine.....	Sept. 12, 1871
114,691	Koch, Philippe, assignor to James Buckingham, England. Nut-machine.....	May 9, 1871
117,302	Kock, William, Cincinnati, Ohio. Tumbler for permutation-locks.....	July 25, 1871
122,177	Koegler, Adolph, Newark, N. J. Apparatus for closing barrels and casks.....	Dec. 26, 1871
110,859	Koehler, John, Warren, Ohio. Roofing-tile press. (Antedated Jan. 6, 1871).....	Jan. 10, 1871
114,829	Kohl, William M., Cincinnati, Ohio. Box-stereoscope.....	May 16, 1871
121,111	Kohn, Morris, assignor to self and Albert L. Munson, Hartford, Conn. Bed-bottom.....	Nov. 21, 1871
121,112	Same..... Chair-seating.....	Nov. 21, 1871
	Kohn, Tobias. (See Fisher, Cyrus assignor)..... (Design.)	
119,155	Kolb, Mathias, New York, N. Y. Screw-propeller.....	Sept. 19, 1871
	Kolbl, Ludwig. (See Hoffmann, Michael, assignor.)	
	Koll, Daniel. (See Estill, James L., assignor.)	
110,767	Komp, Albert, New York, N. Y. Eyeletting machine.....	Jan. 3, 1871
113,177	Komp, A., New York, N. Y. Fastening for neck-ties.....	Mar. 23, 1871
116,067	Kook, Jacob B., and John S. Shrawder, Fairviewville, Pa. Trace-hook attachment.....	June 20, 1871
121,289	Kops, Helena P. De Bruyn, New York, N. Y. Apparatus for the development of the muscles of the hand. (Antedated Nov. 18, 1871).....	Nov. 28, 1871
117,431	Kosht, William H., Ashland, Ohio. Gate.....	July 25, 1871
117,303	Kosinski, Wladyslaw T., Philadelphia, Pa. Forge.....	July 25, 1871
118,863	Kraatz, David K., assignor of one-half interest to A. S. Bare, Ephrata, Pa. Vertical-screw water-wheel.....	Sept. 12, 1871
117,082	Kraus, Joseph J., Menasha, Wis. Wood-boring tool.....	July 18, 1871
4,607	Krausch, Theodore, New York, N. Y. Cooling and ventilating buildings. (Reissue).....	Oct. 24, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,386	Krausch, Theodore, New York, N. Y. Hoisting-apparatus. (Antedated Nov. 18, 1871)	Nov. 23, 1871
121,387	Same..... Malt-house. (Antedated Nov. 13, 1871)	Nov. 23, 1871
113,778	Krauser, Daniel H., assignor to self and Joseph C. Bright, Pottsville, Pa. Combined cider mill and press	April 18, 1871
116,603	Kreger, Simon, Philadelphia, Pa. Crutch-handle	July 4, 1871
114,448	Krehbiel, John, Williamsville, N. Y. Wagon-tongue support	May 2, 1871
117,432	Same..... Trip-hammer	July 25, 1871
	Kreider, Zindgraf & Co. (See Fries, Manasseh, assignor.)	
	Kreidler, Henry, <i>et al.</i> (See Hedrick, Tash & Kreider.)	
4,260	Kreischer, Balthasar, New York, N. Y. Burning-kiln..... (Reissue)	Feb. 14, 1871
112,929	Same..... Composition-tiles for fire-proof buildings	Mar. 21, 1871
112,930	Same..... Hollow tiles	Mar. 21, 1871
114,449	Same..... Manufacture of fire-brick	May 2, 1871
5,140	Same..... Hollow tiles..... (Design)	July 25, 1871
5,186	Same..... Filling up tiles..... (Design)	Aug. 8, 1871
	Kreischer, Balthasar, and George H. Johnson. (See Johnson & Kriescher.) (Two cases.)	
	Kreiter, Thomas B., and Samuel B. Kepperling. (See Kepperling & Kreiter.)	
119,156	Kremser, Martin, Indianapolis, Ind. Metal-planing machine	Sept. 19, 1871
112,033	Krenkel, Kasimir, New York, N. Y. Folding-bedstead	Feb. 21, 1871
4,735	Krenzberger, Louis, assignor to Brainer & Co., Philadelphia, Pa. Bed-quilt. (Design)	Mar. 23, 1871
	Krickl, Moritz. (See Rath, Emil, assignor.)	
119,523	Krieger, John G., Washington, D. C. Children's carriage	Oct. 3, 1871
	Krips, Charles. (See Miller, James H., assignor)..... (Design.)	
	Same..... same..... (Design.)	
113,307	Krisch, Julius, and Charles Thoener, New York, N. Y. Rolling-bed	April 4, 1871
4,430	Kroni, Stephen R., New York, N. Y. Machine for separating ores..... (Reissue)	June 20, 1871
121,526	Same..... Machine for separating and treating ores	Dec. 5, 1871
119,036	Kromer, Theodore, Baden. Bolts for locks	Sept. 19, 1871
113,869	Kromer, Volney, assignor to self and Warren T. Reaser, Grand Rapids, Wis. Hydraulic motor	June 13, 1871
120,444	Kroninger, Daniel and Noah, Eagle Point, Pa. Adjustable buggy-seat	Oct. 31, 1871
110,923	Kubitschky, Oswald, Chicago, Ill. Lounge	Jan. 10, 1871
115,218	Kucker, John L., Philadelphia, Pa. Brick-machine	May 23, 1871
4,815	Kuechler, Jacob Louis, assignor to Orr, Painter & Co., Reading, Pa. Cooking-stove..... (Design)	April 18, 1871
118,726	Kugler, Charles, Barnesville, Ohio. Horse hay-rake	Sept. 5, 1871
5,238	Kuhlmann, Jerome, assignor to self and Henry Kuhlmann, Cincinnati, Ohio. Cushion for backs of chairs, &c..... (Design)	Aug. 29, 1871
	Kuhn, Jonathan, and Peter J. Morse. (See Morse & Kuhn.)	
111,853	Kuhns, Benjamin, Dayton, Ohio. Grain-drill	Feb. 14, 1871
116,719	Same..... same..... (Design.)	July 4, 1871
	Kunkle, Erastus B. (See Bostwick, Emanuel, assignor)..... (Design.)	
118,727	Kunkle, Erastus B., assignor to self and Emanuel Bostwick, Fort Wayne, Ind. Egg-beater	Sept. 5, 1871
118,136	Kunnecke, Erastus C. L., Dayton, Ohio. Grist-mill	Aug. 15, 1871
117,304	Kunstler, John, Collinsville, Conn. Crimping-clamp	July 25, 1871
110,679	Kuntz, Philip, deceased, by John Reichelderfer, Cridersville, Ohio. Corn-planter	Jan. 3, 1871
	Kunze, Henry H., and Frederick W. Eager. (See Eager & Kunze)..... (Design.)	
	Kunzel, Charles Maurice, and George Montefiore Levi. (See Levi & Kunzel.) (Two cases.)	
113,674	Kuper, Richard H., Lockport, N. Y. Coffee-pot	April 11, 1871
	Kurspeidt, Frederick A. (See Kenny, Nicholas, assignor.)	
116,328	Kurtz, Jacob C., Wooster, Ohio. Flax-brake	June 27, 1871
114,154	Kurtz, John L., York, Pa. Water-wheel	April 25, 1871
111,948	Kurtz, John, Philadelphia, Pa. Passenger-register for cars	Feb. 21, 1871
112,356	Kuttner, Julius, New York, N. Y. Take-up for corset-loom	Mar. 7, 1871
114,155	Same..... Shuttle for looms	April 25, 1871
	Kwoczalla, Alois, <i>et al.</i> (See Smith, Kwoczalla & Ripley)..... (Design.)	
117,547	Kynett, Henry P., Lisbon, Iowa. Cultivator	Aug. 1, 1871
116,329	Kysor, John A., Leon, N. Y. Fence	June 27, 1871
	Labaree, John W. (See Carrier, John W., assignor.)	
	Same..... (See Hitchcock, Marcens T., assignor)..... (Reissue.)	
121,263	La Breche Viger, Louis, Montreal, Canada. Converting articles made of wrought-iron into steel. (Antedated Nov. 13, 1871)	Nov. 23, 1871
111,218	Lacey, Edward, Chicago, Ill. Device for bending wood	Jan. 24, 1871
118,864	Lacey, Edward, assignor to self, John Phillips, and Henry Liebenstein, Chicago, Ill. Machine for bending wood	Sept. 12, 1871
118,617	Lacey, John, and George B. Cornell; said Lacey assignor to said Cornell, Chicago, Ill. Combined bush and wrench for bungs	Aug. 29, 1871
112,357	Lackore, Timothy W., Worth, Ill. Elevator and carrier	Mar. 7, 1871
113,532	Lacman, Jacob, Philadelphia, Pa. Doll	April 11, 1871
113,533	Lacy, Erasmus D., assignor to self and Barnes C. Sears, Rockford, Ill. Steam-generator	April 11, 1871
	Ladd, Alexander, Saint Lawrence, N. Y. Check-rein hook	Mar. 23, 1871
113,065	Ladd, Charles D., <i>et al.</i> (See Vincent, George, assignor.)	
	Ladd, Frederick R. (See Ellis, Marshall M., assignor.)	
115,327	Ladd, William F., New York, N. Y. Boiler or digester for making paper-pulp	May 30, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,707	Ladner, Frederick, assignor to Ladner & Bird, Philadelphia, Pa. Ornamentation of glassware.....(Design)	Mar. 14, 1871
113,066	La Dow, Charles, South Galway, N. Y. Combined hay-rake and tedder.....	Mar. 23, 1871
119,157	Same.....Grapple.....	Sept. 19, 1871
116,720	Laemmel, Moritz, Bay Ridge, N. Y. Producing colored prints on paper and other fabrics.....	July 4, 1871
113,308	Laffetra, Joseph P., Shrewsbury, N. J. Potato-digger.....	April 4, 1871
4,247	Lafferty, Hugh W. and Robert, Gloucester City, N. J. Centrifugal sugar-draining machine.....(Division A, reissue)	Jan. 31, 1871
4,248	Same.....Centrifugal sugar-draining machine.....(Division B, reissue)	Jan. 31, 1871
118,806	Lafferty, Robert M., and Edward P. Smith, Three Rivers, Mich. Auger.....	Sept. 12, 1871
4,678	Lafferty, Robert M., assignor to self and Edward P. Smith, Three Rivers, Mich. Pump.....(Reissue)	Dec. 19, 1871
113,309	La France, Truckson S., Elmira, N. Y. Rotary steam-engine.....	April 4, 1871
122,033	Same.....Rotary engine.....	Dec. 19, 1871
115,870	Lagorce, Gabriel H., Newcastle, Pa. Blast-heating furnace or oven.....	June 13, 1871
	Lagowitz, Jacob. (See Myers & Eunson, assignors).....(Disclaimer.)	
	Lague, Timothy. (See Bernard, Cleophas, assignor.)	
116,721	Lahaye, John J., Reading, Pa. Car-axle box.....	July 4, 1871
	Lahaye, John J., and James M. Lyons, Reading, Pa. Cigar-mold.....	Dec. 19, 1871
114,156	Laidlaw, Robert, and John Thompson, Great Britain. Apparatus for exhausting gas, &c.....	April 25, 1871
	Laidlow, George. (See Gilmore & Forrest, assignors.)	
120,284	Lair, Jacob, and Jacob F. Rawzell, Indianapolis, Ind. Toy-gun.....	* Oct. 24, 1871
118,865	Laird, Peter B., Saint Johnsbury, Vt. Composition for staining stone.....	Sept. 12, 1871
122,260	Lake, Eliza J., Washington, D. C. Method of cutting cloth.....	Dec. 26, 1871
121,249	Lake, Ezra B., Mauricestown, N. J. Oyster-dredge.....	Nov. 23, 1871
117,433	Lake, James B., jr., Baltimore, Md. Tablet index-book.....	July 25, 1871
	Lalanc & Grosjean Manufacturing Company. (See Raymond, Francois, assignor.)	
	Same.....(See Chaumont, Jules, assignor.)	
115,485	Lally, Michael, East Palestine, Ohio. Bedstead.....	May 30, 1871
114,157	Lamau, Carrie R., Painted Post, N. Y. Lubricating railway-journals.....	April 25, 1871
118,371	Lamar, Mireybeau B., Atlanta, Ga. Cotton-cultivator. (Antedated Aug. 11, 1871)	Aug. 22, 1871
122,261	Lamason, Benjamin P., and Samuel W. Murray. (See Murray & Lamason.)	
	Lamb, Daniel Martin, assignor to self and Van Rensselaer Warren, Strathroy, Canada. Plow.....	Dec. 26, 1871
117,083	Lamb, Israel L., Darien, Wis. Molding-machine.....	July 18, 1871
	Lamb, Salem T., New Albany, Ind. Self-acting rake for harvesters..(Extension)	June 14, 1871
121,175	Same.....Lock-nut.....	Nov. 21, 1871
121,176	Same.....same.....	Nov. 21, 1871
121,225	Same.....Link for chain-couplings.....	Nov. 21, 1871
	Lamb, Salem T., and William N. Whiteley. (See Whiteley & Lamb.)	
118,728	Lamb, Thomas, Philadelphia, Pa. Sewing-machine.....	Sept. 5, 1871
4,397	Lambe, Frederick, England. Process and apparatus for purifying paraffine and other substances.....(Reissue)	May 23, 1871
115,871	Same.....Treating solid and liquid hydrocarbons.....	June 13, 1871
111,066	Lambert, Francois, Los Angeles, Cal. Mode of making bricks.....	Jan. 17, 1871
117,955	Lambert, Richard C., Quincy, Mass. Heel-burnishing machine.....	Aug. 8, 1871
115,219	Lambert, Richard C., assignor to self and John R. Folsom, Quincy, Mass. Machine for trimming boot and shoe heel and sole edges.....	May 23, 1871
	Lambrix, George J., and Augustus Altenburg. (See Altenburg & Lambrix.)	
119,369	Lamburn, Jonathan, Boundary City, Ind. Clover-harvester.....	Sept. 26, 1871
111,754	Lamkin, Josiah B., Campaign, Ill. Combination tool.....	Feb. 14, 1871
	Lamkin, William S., and Thomas D. Simpson. (See Simpson & Lamkin.)	
121,527	Lamm, Emile, New Orleans, La. Feeder for ammoniacal-gas engines.....	Dec. 5, 1871
	Lammont, D., jr., et al. (See Kligenburg, Adolph, assignor.)	
111,949	Lamon, Daniel L., Boston, Ga. Horse-power.....	Feb. 21, 1871
121,946	La Monte, George, George G. Saxe, and Charles H. Clayton, New York, N. Y. Colored paper.....	Dec. 19, 1871
	Lampert, Henry. (See Dobson, William H., assignor).....(Two cases.)	
122,035	Lamplugh, Isaac, Peoria, Ill. Coal-mining tool.....	Dec. 19, 1871
116,457	Lampman, Benjamin N., Rutland, Vt. Sifting-machine. (Antedated June 7, 1871)	June 27, 1871
119,619	Lampman, John C., Baltimore, Mich. Horse hay-fork.....	Oct. 3, 1871
	Lamson, E. G. (See Plumer, William, assignor).....(Disclaimer.)	
4,407	Lamson, Ebenezer G., assignor to the Windsor Manufacturing Company, Shelburne Falls, Mass. Machine for channeling rock.....(Reissue)	May 30, 1871
	Lance, William L. (See Cohen, Robert L., assignor.)	
	Same.....(See Hatcher, William Z., assignor)	
4,555	Landenberger, Charles H., Philadelphia, Pa. Shawl.....(Design)	Jan. 3, 1871
4,249	Landenberger, Martin, Philadelphia, Pa. Shawl.....(Reissue of design)	Jan. 31, 1871
4,670	Same.....same.....(Design)	Feb. 21, 1871
4,860	Same.....Knitted trimming.....(Design)	May 2, 1871
	Landenberger, Martin, & Co. (See Weiler, Charles, assignor.)	
115,486	Lander, George, New York, N. Y. Machine for washing coal.....	May 30, 1871
113,310	Landers, Henry B., Williamsburgh, N. Y. Feeder for nail-machines.....	April 4, 1871
110,979	Landfear, William R., Hartford, Conn. Manufacture of eyelet-blanks. (Antedated Jan. 5, 1871)	Jan. 17, 1871
118,461	Landis, Henry H., Lancaster, Pa. Fence.....	Aug. 29, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Landis, Jacob H., and Daniel E. McSherry. (<i>See</i> McSherry & Landis.)	
	Landon, E. H. (<i>See</i> Jimo, Joseph, assignor.)	
117,787	Landry, Charles C. (<i>See</i> Malone, Patrick, assignor.)	
	Landry, Marcelin, Iberville Parish, La. Apparatus for defecating and bleaching cane-juice, &c.....	Aug. 8, 1871
122,262	Landvoigt, Dorus W., Washington, D. C. Ruling-machine.....	Dec. 26, 1871
	Lane & Bodley. (<i>See</i> Myers & Smith, assignors.)	
122,263	Lane, Dennis, Montpelier, Vt. Head block for saw-mills.....	Dec. 26, 1871
115,068	Lane, George W., Chichester, N. H. Machine for sharpening calks.....	May 23, 1871
111,067	Lane, George W., assignor to self and John Alles, Portland, Me. Combined steamer and condenser.....	Jan. 17, 1871
116,966	Lane, James M., South Norwalk, Conn. Combined skid and truck.....	July 11, 1871
110,860	Lane, John, assignor to Hapgood & Co., Chicago, Ill. Plow-share.....	Jan. 10, 1871
111,854	Same..... Plow.....	Feb. 14, 1871
113,436	Lane, John, Jr., Chicago, Ill. Plow.....	April 4, 1871
	Lane, Samuel B., and Martin Summers. (<i>See</i> Summers & Lane.)	
5,253	Lane, Wilbur F., Boston, Mass. Burial casket.....(Design)..	Sept. 5, 1871
112,155	Lang, Charles, assignor of one-half interest to Henry G. Clagstone, Jersey City, N. J. Patching, punching, and embossing button-holes of paper-collars.....	Feb. 28, 1871
112,054	Lang, Edward M., Portland, Me. Casting solder-wire.....	Feb. 21, 1871
120,387	Lang, George P., and Peter Lauster, Allegheny, Pa. Top for sirup-pitchers.....	Oct. 31, 1871
	Lang, John H. B., <i>et al.</i> (<i>See</i> Wiley, Moses H., assignor).....(Design.)	
112,931	Langdon, George W., assignor to self and Lewis Seneare, Greene, N. Y. Stove-pipe shelf and clothes-drier.....	Mar. 21, 1871
115,328	Langdon, Orrin H., assignor to Charles W. Kinne, Homer, N. Y. Hand-saw.....	May 30, 1871
116,200	Langdon, Orrin H., assignor to self and Charles W. Kinne, Homer, N. Y. Valve-operating mechanism for water-meters.....	June 20, 1871
122,178	Langford, Charles F., Brooklyn, N. Y. Device for supporting drawers.....	Dec. 26, 1871
	Langhoff, William, <i>et al.</i> (<i>See</i> Thurston, John A., assignor.)	
117,548	Langley, Clark M., Lowell, Mass. Governor for steam-engines. (Antedated July 18, 1871).....	Aug. 1, 1871
117,647	Langley, Thomas J., assignor to self and C. P. Conant, East Cambridge, Mass. Composition for coating shingles.....	Aug. 1, 1871
115,487	Lank, Beecher M., Oswego, Kans. Skate.....	May 30, 1871
119,370	Lannert, John A., Cleveland, Ohio. Hold-back for carriages.....	Sept. 26, 1871
119,371	Same..... Whiffletree.....	Sept. 26, 1871
	Lansing, Henry S. (<i>See</i> Lovegrove, Thomas J., assignor.)	
121,250	Lansing, Killian V. R., Jr., Albany, N. Y. Men's drawers.....	Nov. 28, 1871
115,488	Lanston, Tolbert, Washington, D. C. Comb and brush. (Antedated May 27, 1871).....	May 30, 1871
115,964	Same..... Car-coupling.....	June 13, 1871
112,055	Same..... Dumb-waiter.....	Feb. 21, 1871
117,084	Lanstrom, Reinhold, Cincinnati, Ohio. Composition-steatite pencil.....	July 18, 1871
115,620	Lantz, Jesse, Wheeling, W. Va. Smut-machine.....	June 6, 1871
	Lape, Rufus, <i>et al.</i> (<i>See</i> Staats, William H., assignor.)	
120,523	Lapham, Daniel W., assignor to Josephine M. Lapham, Baltimore, Md. Brush.....	Oct. 31, 1871
	Lapish, William, and John C. Walker. (<i>See</i> Walker & Lapish.)	
113,534	La Port, Franklin H., Clarinda, Iowa. Grinding-mill.....	April 11, 1871
111,354	Lapsley, Thomas J., Nashville, Tenn. Pump.....	June 31, 1871
119,620	Larkin, James E., Newark, N. J. Medical compound for cure of consumption.....	Oct. 3, 1871
	Larman, J. Q., <i>et al.</i> (<i>See</i> Maloney, James A., assignor.)	
4,736	Larner, John B., Washington, D. C. Salt-cellar.....(Design)..	Mar. 28, 1871
112,932	Laroye, Auguste, Belgium. Bell-hanging.....	Mar. 21, 1871
	Larrabee, Benjamin F. (<i>See</i> Thomas, James H., assignor.)	
	Same.....(<i>See</i> Pratt, James H., assignor.)	
	Same..... same.....(Reissue.)	
	Same.....(<i>See</i> Hodges, Samuel H., assignor.)	
121,461	Larrabee, Charles, assignor of three-fourths interest to John Yule, Haywood, Cal. Washing-machine.....	Dec. 5, 1871
116,201	Larson, Carl G., Sweden. Apparatus for heating the converters and other vessels used in the Bessemer process of treating iron.....	June 20, 1871
113,535	La Rue, Silas Hoffman, assignor to self and William J. Hoxworth, Allentown, Pa. Base-burning stove. (Antedated April 1, 1871).....	April 11, 1871
	La Rue, Silas Hoffman, and William Jenkins Hoxworth. (<i>See</i> Hoxworth & La Rue.)	
	Lascell, George W., and Abraham Coates. (<i>See</i> Coates & Lascell.)	
	Lash, Abram. (<i>See</i> Wheat, John J., assignor).....(Reissue.)	
115,965	Lash, John S., assignor to self and Jonathan R. Seltzer, Philadelphia, Pa. Shutter-fastener.....	June 13, 1871
113,779	Latham, Cyrus H., Lowell, Mass. Machine for making wire cylinders.....	April 18, 1871
4,619	Latham, Cyrus H., and George D. Dudley, assignors to Woods, Sherwood & Latham, Lowell, Mass. Bottle-stand.....(Design)..	Jan. 31, 1871
116,722	Latham, Cyrus H., and John S. Lugg, assignors to Edward P. Woods, Daniel Sherwood, and Cyrus H. Latham, Lowell, Mass. Revolving caster.....	July 4, 1871
4,656	Same..... Revolving caster.....(Division A, reissue)..	Dec. 5, 1871
4,657	Same..... same.....(Division B, reissue)..	Dec. 5, 1871
5,131	Latham, Cyrus H., assignor to self, Edward P. Woods, and Daniel Sherwood, Lowell, Mass. Table-caster.....(Design)..	July 18, 1871
118,027	Same..... Cake and fruit basket.....	Aug. 15, 1871
	Latham, Cyrus H., <i>et al.</i> (<i>See</i> Sherwood & Dudley, assignors).....(Design.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Latham, Cyrus H., <i>et al.</i> (See Dudley, George D., assignor)..... (Design.)	
	Same..... (See Goodhue, Charles W., assignor)..... (Design.)	
	Same..... same.	
119,857	Lathrop, Chancy H., Jersey City, N. J. Truck for locomotive-engines	Oct. 10, 1871
122,264	Same..... Railway-car brake	Dec. 26, 1871
118,275	Lathrop, Levi B., San José, Cal. Lamp-wick adjuster	Sept. 26, 1871
122,121	Latimer, John H., Crystal Lake, Ill. Hand-planter	Dec. 26, 1871
119,372	Latshaw, Hezekiah, McKnightstown, Pa. Fence	Sept. 26, 1871
	Latta, A. B., deceased, by Finley Latta, administrator, Cincinnati, Ohio. Steam-generator..... (Extension).....	Oct. 9, 1871
	Latta, Emmit G. (See Thornton, James, assignor.)	
	Latta, Emmit G., and James Thornton. (See Thornton & Latta).. (Four cases.)	
111,219	Laub, George H., West Lebanon, Ind. Pump	Jan. 24, 1871
117,895	Laubach, William H., Philadelphia, Pa. Rotary measuring-faucet. (Antedated Aug. 2, 1871).....	Aug. 8, 1871
	Laughland, G. L. (See Smith, Benjamin F., assignor)..... (Two cases.)	
115,329	Laughlin, Henry H., assignor to Mary A. Laughlin, Philadelphia, Pa. Lamp... May 30, 1871	
115,069	Laughlin, John L., Peru, Ill. Attaching handles to plows	May 23, 1871
115,070	Laurence, Henry, New Orleans, La. Dental-file holder and polisher..... May 23, 1871	
120,077	Same..... Neck-tie retainer	Oct. 17, 1871
115,743	Laurence, William E., New York, N. Y. Curry-comb	June 6, 1871
119,858	Laurent, Jacques, New York, N. Y. Stem-winding watch	Oct. 10, 1871
	Lauster, Peter, and George P. Lang. (See Lang & Lauster.)	
118,540	Laux, Thomas, Bucyrus, Ohio. Wagon-reach	Aug. 29, 1871
	Lavinia, William H., and Edward H. Clinton. (See Clinton & Lavinia.)	
118,372	Lavroff, Alexandre Etienne, Russia. Alloy of copper and tin	Aug. 22, 1871
	Lavy, John T. (See Smyth, D. M., assignor.)	
117,305	Lawler, Edward, Hartford, Conn. Regulator for burners	July 25, 1871
118,729	Lawless, Levi N., Geneseo, Ill. Carriage-shackle	Sept. 5, 1871
118,730	Same..... Weather-strip for doors	Sept. 5, 1871
5,308	Lawrence, Alexander W., Raleigh, N. C. Sash-holder	Oct. 10, 1871
121,878	Lawrence, Benjamin, Lowell, Mass. Lathe	Dec. 12, 1871
115,744	Lawrence, Charles L., New York, N. Y. Fluid for writing on checks, drafts, &c	June 6, 1871
	Lawrence, E. D. (See Jones, Solomon, assignor)..... (Two cases.)	
114,158	Lawrence, Franklin, Philadelphia, Pa. Tuyere for cupola-furnaces	April 25, 1871
117,025	Lawrence, Harry, New York, N. Y. Wheelbarrow. (Antedated July 7, 1871)	July 18, 1871
117,086	Same..... same	July 18, 1871
122,179	Lawrence, John E., and John S. Young, Philadelphia, Pa. Folding-bureau..... Dec. 26, 1871	
116,967	Lawrence, Samuel, New York, N. Y. Stench-trap	July 11, 1871
122,180	Lawrence, Stephen B., Scarsdale, N. Y. Hemmer for sewing-machines	Dec. 26, 1871
114,450	Lawrence, William H., Williamsburgh, N. Y. Self-extinguishing safety-can for combustible materials	May 2, 1871
113,178	Lawrence, William H., assignor to self, J. K. P. Sweeting, Jonathan P. Creager, and William W. Brigg, Baltimore, Md. Vapor-burner	Mar. 28, 1871
120,285	Lawrence, William H., assignor of one-half interest to D. A. Edie and one-fourth interest to H. C. Karr, Baltimore, Md. Grain-separator	Oct. 24, 1871
116,330	Lawrence, William H. S., and Charles I. Collamore, Bangor, Me. Pan-lifter..... June 27, 1871	
111,068	Laws, Albert D., Bridgeport, Conn. Oiler	Jan. 17, 1871
112,722	Same..... Meter	Mar. 14, 1871
115,745	Laws, Albert D., and James C. Cooke, Bridgeport, Conn. Pump	June 6, 1871
116,968	Lawson, Benjamin S., Brooklyn, N. Y. Steam-engine governor	July 11, 1871
120,982	Lawson, Benjamin S., assignor to self and Handren & Ripley, Brooklyn, N. Y. Engine-governor	Nov. 14, 1871
5,074	Lawson, James A., Troy, N. Y. Hot-air furnace	July 4, 1871
5,075	Same..... same..... (Design).....	July 4, 1871
116,723	Same..... same..... (Design).....	July 4, 1871
116,724	Same..... same..... (Design).....	July 4, 1871
118,618	Lawson, John, Humboldt, Kans. Washing-machine	Aug. 29, 1871
120,445	Lawton, Arthur W., Rochester, N. Y. Harness. (Antedated Oct. 21, 1871)..... Oct. 31, 1871	
113,780	Lawton, Christopher P., assignor to self and Eben A. Day, Webster, Mass. Neck-tie retainer	April 18, 1871
	Lawton, Edwin R., <i>et al.</i> (See Jeralds, Nettleton & Lawton.)	
115,330	Lawton, George C., Algona, Iowa. Catch for gate and door latches	May 30, 1871
110,980	Lawton, Hamilton B., Cropseyville, N. Y. Mode of forming balls of twine and cord	Jan. 17, 1871
	Lawton, Hiram. (See Patric, John S., assignor.)	
4,414	Layaux, Francois, Monroe, La. Bedstead and tester	June 6, 1871
116,458	Same..... Saw-mill	June 27, 1871
	Layman, Abraham K., <i>et al.</i> (See Campbell, James A., assignor.)	
113,311	Laynor, George, and Harry Helming, Baltimore, Md. Fire-escape..... April 4, 1871	
119,089	Lea, Henry Elford, Half Moon Bay, Cal. Washing-machine	Sept. 19, 1871
111,653	Leach, Daniel P., and William F., Franklin, Ind. Portable stall	Feb. 7, 1871
120,286	Leach, George, Union, N. Y. Washing-machine	Oct. 24, 1871
119,373	Leach, George J., Rome, N. Y. Wash-boiler	Sept. 26, 1871
114,451	Leach, Joseph D., Penobscot, Maine. Match-hook	May 2, 1871
	Leach, Joseph D., and Isaiah W. Bowden. (See Bowden & Leach.)	
117,434	Leach, Leanders, Wilmington, Ill. Windmill	July 25, 1871
121,947	Leach, Rufus, assignor to self and Michael Schwartz, Bangor, Maine. Rotary engine	Dec. 19, 1871
	Leachman, William B., and George H. Nussey. (See Nussey & Leachman.)	
	Leak, Samuel, and John H. Jackson. (See Jackson & Leak.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Leake, Richard. (<i>See</i> Mills, John C., assignor)(Two cases.)	
116,969	Lear, Frederick, Saint Louis, Mo. Preserving, coloring, and seasoning wood ..	July 11, 1871
112,233	Lear, Peter, Boston, Mass. Chest-protector.....	Feb. 23, 1871
119,621	Leas, Isaac, and William H. France, Terre Haute, Ind. Pipe-elbow.....	Oct. 3, 1871
	Leavitt, Alexander, and John T. O'Donoghue. (<i>See</i> O'Donoghue & Leavitt.)	
114,330	Leavitt, Charles P., New York, N. Y. Treadle.....	May 16, 1871
117,087	Same.....Apparatus for making ice. (Antedated July 7, 1871)	July 13, 1871
118,028	Same.....Gas-engine. (Antedated Aug. 3, 1871)	Aug. 15, 1871
121,635	Same.....Car-starter. (Antedated Nov. 25, 1871)	Dec. 5, 1871
117,088	Leavitt, Thomas, Everett, Mass. Printing-press.....	July 13, 1871
122,181	Leavitt, Thomas H., Boston, Mass. Machine and process for manufacture of peat fuel. (Antedated Dec. 20, 1871)	Dec. 26, 1871
112,471	Leayercroft, Edwin S., assignor through mesne assignments to Colt's Patent Fire- Arms Manufacturing Company, Brooklyn, N. Y. Revolving fire-arm.....	Mar. 7, 1871
112,472	Same.....Revolving fire-arm.....	Mar. 7, 1871
111,552	Le Blanc, Thomas, Philadelphia, Pa. Boiler-tube plug	Feb. 7, 1871
	Le Bosquet, Henry, <i>et al.</i> (<i>See</i> Tefft, James W., assignor.)	
114,831	Leckie, Robert Gilmour, Acton Vale, Canada. Apparatus for evaporating and concentrating brine and other liquids.....	May 16, 1871
116,970	Same.....Apparatus for the manufacture of salt	July 11, 1871
122,265	Le Clerq, Arthur, New York, N. Y. Copying-press.....	Dec. 26, 1871
112,818	Lee, Archibald K., Galveston, Tex. Rectifying high wines	Mar. 21, 1871
117,549	Same.....Apparatus for distilling turpentine	Aug. 1, 1871
121,177	Lee, Charles C., Falls Church, Va. Shaft-tug for harness	Nov. 21, 1871
117,089	Lee, Charles S., and William M. Baldwin, Troy, N. Y. Reflector for locomotive- head lights.....	July 13, 1871
116,459	Lee, Charles T., assignor to self and Lloyd H. Dean, Taunton, Mass. Flower- stand.....	June 27, 1871
119,775	Lee, Henry A., New York, N. Y. Flanged collar for brooms.....	Oct. 10, 1871
120,589	Lee, Henry A., Worcester, Mass. Planing-machine.....	Nov. 7, 1871
119,932	Lee, Henry B., Maryville, Mo. Brake for vehicles	Oct. 17, 1871
114,951	Lee, James, assignor to Philo Remington, Milwaukee, Wis. Breech-loading fire-arm.....	May 16, 1871
116,068	Same.....Breech-loading fire-arm.....	June 20, 1871
112,358	Lee, James R., Grass Valley, Cal. Apparatus for burning hydrocarbon oils	Mar. 7, 1871
114,159	Lee, John, jr., and John, sr., Du Quoin, Ill. Band-cutting attachment for thrashing-machines	April 25, 1871
119,374	Lee, John H., Marshall, Tex. Gate-latch.....	Sept. 26, 1871
119,859	Same.....Washing-machine.....	Oct. 10, 1871
118,251	Lee, Leroy E., assignor of one-half interest to Louis Gerties, New Orleans, La. Rice hulling and polishing machine	Aug. 22, 1871
116,460	Lee, Lewis L., Milwaukee, Wis. Low-water detector.....	June 27, 1871
	Lee, Oscar D., <i>et al.</i> (<i>See</i> Johnson, Albert W., assignor.)	
112,359	Lee, Robert, Cincinnati, Ohio. Burglar-alarm.....	Mar. 7, 1871
118,462	Lee, Samuel, Taunton, Mass. Culinary vessel.....	Aug. 29, 1871
4,619	Same.....Combined gridiron, griddle, and frying utensil.....(Reissue)	Oct. 31, 1871
114,832	Lee, Sverre, assignor to self and James D. Reymert, New York, N. Y. Marine locomotive	May 16, 1871
122,182	Lee, Thomas, Westport, Conn. Retractor for revolving fire-arms	Dec. 26, 1871
	Leedom, Shaw & Stewart. (<i>See</i> Crabtree, Jonathan, assignor.) (Twenty-eight cases.) (Design.)	
116,069	Leeper, John E., Godfrey, Ill. Construction of cars.....	June 20, 1871
4,225	Leete, Ursula L., New Haven Conn. Instrument for draughting gar- ments.....(Division A, reissue)	Jan. 3, 1871
4,226	Same.....Instrument for draughting garments.....(Division B, reissue)	Jan. 3, 1871
	Le Favour, Heber. (<i>See</i> Garland, James, assignor.)	
120,446	Lefebvre, James, and George W. Shults, Cambridge City, Ind. Earth-pulverizer and harrow. (Antedated Oct. 21, 1871)	Oct. 31, 1871
114,571	Leffel, Thomas, assignor to Barnett, Herrman & Co., Springfield, Ohio. Water- wheel.....	May 9, 1871
114,692	Lefferts, Marshall, New York, N. Y. Chemical electric telegraph	May 9, 1871
	Same.....(<i>See</i> Edison, Thomas A., assignor)(Three cases.)	
119,158	Legg, Joshua D., Long Eddy, N. Y. Curtain-fixture	Sept. 19, 1871
112,933	Leggo, William Augustus, Montreal, Canada. Leggotyping.....	Mar. 21, 1871
113,067	Same.....Photographic camera	Mar. 23, 1871
115,459	Same.....Granulated photograph	May 30, 1871
119,622	Same.....Electrotyping	Oct. 3, 1871
115,490	Leggo, William Augustus, assignor to self and George Edward Desbarats, Montreal, Canada. Process for obtaining molds for electrotyping purposes ..	May 30, 1871
	Legler, Friedrich and John Fanning. (<i>See</i> Fanning & Legler.)	
110,861	Le Goulion, Philip, Pittsburgh, Pa. Gravel and sand heater.....	Jan. 10, 1871
115,746	Lehman, Bernhard E., and Robert Ross, Bethlehem, Pa. Gauge-cock	June 6, 1871
119,860	Lehman, John A., Philadelphia, Pa. Breast-pin fastener.....	Oct. 10, 1871
113,063	Lehmann, Otto, Columbus City, Iowa. Steaming-apparatus	Mar. 28, 1871
119,159	Lehner, Isaac, Lima, Ind. Windmill.....	Sept. 19, 1871
121,790	Lehnert, Carl, Boston, Mass. Chime for reed and pipe organs, &c.....	Dec. 12, 1871
	Lehr, Ferdinand A. (<i>See</i> Okey, Joseph B., assignor.)	
	Leibenstein, Henry, <i>et al.</i> (<i>See</i> Gustafson, Gustaf, assignor.)	
	Leibold, Jacob F., and Christian Bickel. (<i>See</i> Bickel & Leibold.)	
	Leidy, James C., <i>et al.</i> (<i>See</i> Babcock, Stilson & Leidy.)	
	Leidy, Joel R. (<i>See</i> Adams, James T., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,888	Leigh, William, Bridgeport, Conn. Ornamentation of piano-fronts .. (Design) ..	May 9, 1871
119,037	Leighton, William, jr., <i>et al.</i> (See Hobbs, Brockemier & Leighton.)	
120,651	Leistner, John C., and Augustus Kayser, Cincinnati, Ohio. Low-water alarm ..	Sept. 19, 1871
113,536	Leland, Edwin J., Worcester, Mass. Galvanic battery ..	Nov. 7, 1871
111,127	Leland, Frederick C., and Samuel W. Poland, Lowell, Mass. Depurator ..	April 11, 1871
114,952	Leland, James, Springfield, Mass. Car-spring ..	Jan. 24, 1871
119,861	Leland, William P., Mendon, Mich. Grain-bag holder ..	May 16, 1871
110,981	Lenke, Carl, Cincinnati, Ohio. Bread-cutter ..	Oct. 10, 1871
113,898	Lenman, John, Cincinnati, Ohio. Machine for molding chair-bottoms ..	Jan. 17, 1871
117,896	Same .. Machine for molding chair-backs ..	April 18, 1871
112,934	Lenman, John, assignor to Hamilton and Daniel L. Bates, Cincinnati, Ohio. Drilling-machine ..	Aug. 8, 1871
119,234	Lenman, Martin R., Hamilton, Ohio. Hinge ..	Mar. 21, 1871
122,122	Lenman, Martin R., and William A. L. Kirk, Hamilton, Ohio. Crimping-machine ..	Sept. 26, 1871
116,331	Lenhart, Adam L., assignor through mesne assignments to Daniel B. Felter, New Brunswick, N. J. Toy-gun ..	Dec. 26, 1871
121,948	Lenher, George H., Elizabeth, N. J. Shuttle for sewing-machines ..	June 27, 1871
	Lennig, Charles, Philadelphia, Pa. Removing tin from tin-scrap ..	Dec. 19, 1871
	Lent, Andrew, and Edgar Hitt. (See Hitt & Lent.)	
	Lentz, Moses A., <i>et al.</i> (See Royal, Lentz & Deibert.)	
	Leonard, Andrew, deceased, by John Benedict, administrator, Kenosha, Wis. Mode of casting seamless skeins for wagons. (Extension of Division A) ..	Feb. 23, 1871
	Same .. Cast seamless thimble-skeins for wagons. (Extension of Division B) ..	Feb. 23, 1871
119,862	Leonard, Daniel M., and Calvin F. Manuel. (See Manuel & Leonard.)	
116,070	Leonard, George D., Chicago, Ill. Bed-bottom ..	Oct. 10, 1871
116,071	Leonard, George W., Middle Valley, Pa. Side-hill plow ..	June 20, 1871
110,924	Same .. Water-wheel ..	June 20, 1871
116,461	Leonard, John M., Marshall, Mich. Plow ..	Jan. 10, 1871
121,879	Leonard, John N., Rockville, Conn. Machine for stretching silk ..	June 27, 1871
5,443	Same .. Guide for silk-winding ..	Dec. 12, 1871
118,137	Same .. Sample-case for thread and sewing-silk .. (Design) ..	Dec. 19, 1871
118,951	Leonard, William and William E., Chelsea, Mass. Harness-saddle ..	Aug. 15, 1871
120,287	Leonhard, Frank A., Columbia, Tenn. Cotton chopper, scraper, and cultivator ..	Sept. 12, 1871
121,178	Lepage, Antoine, Woodhaven, N. Y. Coffee-mill ..	Oct. 24, 1871
	Same .. Sash-pulley ..	Nov. 21, 1871
	Leseman, Ernest, and Joseph T. Woods. (See Woods & Leseman.)	
112,819	Lesley, William W., and Madison Buell. (See Buell & Lesley) .. (Design.)	
118,373	Leslie, Andrew M., Saint Louis, Mo. Physicians' saddle-bag ..	Mar. 21, 1871
120,078	Leslie, Benjamin J., Irvine, Ky. Fly-trap ..	Aug. 22, 1871
121,251	Leslie, Thomas, Brooklyn, N. Y. Revolving flower-stand ..	Oct. 17, 1871
118,731	Leslie, Whitman, Gray, Me. Sleigh. (Antedated Nov. 13, 1871) ..	Nov. 28, 1871
120,983	Lesner, Alexander C., assignor to self and Abram B. Davis, Fonda, N. Y. Water-wheel ..	Sept. 5, 1871
121,949	Lessig, Samuel, sr., Reading, Pa. Grain-separator ..	Nov. 14, 1871
111,950	Lessler, Joseph, Buffalo, N. Y. Lawn-sprinkler ..	Dec. 19, 1871
115,872	Lester, John H., Niantic, Conn. Refrigerator ..	Feb. 21, 1871
117,649	Lester, John H., Brooklyn, N. Y. Sewing-machine ..	June 13, 1871
116,725	Lesner, Augustus S., assignor to self and G. M. Wentworth, Milltown, Me. Blind-fastening ..	Aug. 1, 1871
5,260	Letchworth, George J., Auburn, N. Y. Hame ..	July 4, 1871
116,462	Letchworth, Josiah, Buffalo, N. Y. Hame-loop .. (Design) ..	Sept. 12, 1871
	Same .. (See Cooper, Edward A., assignor.)	
117,897	Letord, Joseph S., Sedalia, Mo. Colapound for dyeing hair ..	June 27, 1871
112,820	Letson, Johnson, New Brunswick, N. J. Rubber shoe ..	Aug. 8, 1871
	Letterman, Charles, assignor to John W. Throop, Syracuse, N. Y. Wash-board ..	Mar. 21, 1871
112,821	Letts, Thomas W., and Samuel Hollabaugh. (See Hollabaugh & Letts.)	
118,463	Levake, George J., <i>et al.</i> (See Phillips, George B., assignor.)	
115,220	Levey, Charles, Toronto, Canada. Planing-machine ..	Mar. 21, 1871
	Same .. Steam-engine ..	Aug. 29, 1871
120,984	Levi, George Montefiore, and Charles Maurice Kunzel, Belgium. Alloy of bronze ..	May 23, 1871
117,650	Levi, George M., and Charles M. Kunzel, assignors to Charles James Adolph Dick, Belgium. Bronze alloy ..	Nov. 14, 1871
111,461	Leviess, John, assignor to Joseph S. Sanborn, Brooklyn, N. Y. Paper-cutting machine ..	Aug. 1, 1871
4,300	Levis, Cyrus, Philadelphia, Pa. Letter-box ..	Jan. 31, 1871
118,541	Levis Samuel G., assignor to James C. Beach, Kellysville, Pa. Making thick paper .. (Reissue) ..	Mar. 14, 1871
119,776	Levy, Joseph, Wolcottville, Conn. Machine for examining and replacing cigars ..	Aug. 29, 1871
113,312	Lewelling, Elisha D., San Lorenzo, Cal. Fruit-packing box ..	Oct. 10, 1871
113,781	Lewis, Albert C., assignor to self, H. A. Richardson, and N. A. Boynton, New York, N. Y. Covering for melting-pots ..	April 4, 1871
120,652	Lewis, Benjamin B., assignor to self and Solomon C. Spring, Bristol, Conn. Clock-movement ..	April 18, 1871
114,833	Lewis, Charles Carrington, Gainesville, Ala. Twine-cutter ..	Nov. 7, 1871
119,933	Lewis, Charles E., Bay City, Mich. Saw-mill ..	May 16, 1871
120,885	Lewis, Eli F., Winsted Lake, Minn. Wash-boiler ..	Oct. 17, 1871
	Lewis, Ellery Channing, Glasgow, Mo. Honey-box for bee-hives ..	Nov. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,331	Lewis, Fitch B., Tiffin, Ohio. Flour-bolting reel.....	May 30, 1871
112,606	Lewis, George T., Philadelphia, Pa. Process of refining and whitening the products from sulphurets of lead and zinc.....	Mar. 14, 1871
112,607	Same..... Refining and whitening the products from ores of lead and zinc.....	Mar. 14, 1871
112,608	Same..... Manufacture of carbonate of lead, &c.....	Mar. 14, 1871
114,693	Same..... Grinding phosphatic substances.....	May 9, 1871
116,604	Same..... Desulphurizing and volatilizing lead and silver ores.....	July 4, 1871
113,717	Lewis, George W., Winchester, Ky. Corn-planter.....	April 11, 1871
116,726	Lewis, George W., assignor to self and John Hyland, Dansville, N. Y. Punching-machine.....	July 4, 1871
121,636	Lewis, Ira B., Belvidere, Ill. Sawing-machine.....	Dec. 5, 1871
112,056	Lewis, Jacob S., Baltimore, Md. Boot.....	Feb. 21, 1871
116,605	Lewis, James, assignor to self and Edward J. Cuyler, Chicago, Ill. Exhaust-nozzle.....	July 4, 1871
114,572	Lewis, Joseph, England. Valve.....	May 9, 1871
119,934	Lewis, Lewis, assignor of one-half interest to George M. Barber, Vicksburgh, Miss. Cotton-press.....	Oct. 17, 1871
120,886	Lewis, Mary E., Mansfield, Ohio. Dish-washer.....	Nov. 14, 1871
114,308	Lewis, Miles K., and Joseph Munger, Malcom, Iowa. Stalk-cutter.....	May 2, 1871
121,388	Lewis, Oscar P., Cincinnati, Ohio. Engine and pump.....	Nov. 28, 1871
113,675	Lewis, Reuben, New York, N. Y. Machine for covering cord.....	April 11, 1871
118,952	Lewis, Samuel, Williamsburgh, N. Y. Slat-matting for car-floors, &c.....	Sept. 12, 1871
115,221	Lewis, Samuel S. B., and William H. Sterling, Troy, N. Y. Safe.....	May 23, 1871
118,252	Lewis, Sylvester, assignor to self and Henry Churchill, Rochester, N. Y. Metal hoop.....	Aug. 22, 1871
	Lewis, Thomas, and John C. Maxcy. (See Maxcy & Lewis.)	
118,374	Lewis, Tristram S., Buxton, Me. Washing-machine.....	Aug. 22, 1871
116,971	Lewis, William, Webster, N. Y. Washing-machine.....	July 11, 1871
	Lewis, William, <i>et al.</i> (See While, Lewis, Strickland & Caddick.)	
121,880	Lewis, William, assignor to self and David T. Way, Astoria, N. Y. Stocking for horses.....	Dec. 12, 1871
119,863	Lewis, William A., assignor to Hollow Axle Manufacturing Company, Chicago, Ill. Hollow axle for wagons and carriages. (Antedated Sept. 29, 1871)	Oct. 10, 1871
119,864	Same..... Process of making hollow metallic axles and other hollow metallic articles.....	Oct. 10, 1871
119,865	Same..... Apparatus for welding.....	Oct. 10, 1871
119,866	Same..... Hollow axle for railroad-cars.....	Oct. 10, 1871
119,867	Same..... Car-wheel.....	Oct. 10, 1871
119,868	Same..... Wrought-metal axle for wagons and carriages.....	Oct. 10, 1871
119,869	Same..... Tubular double-arch axle for wagons.....	Oct. 10, 1871
4,584	Same..... Wagon-axle..... (Reissue)	Oct. 10, 1871
110,982	Lewis, William E., Princeton, Iowa. Siding-gauge.....	Jan. 17, 1871
110,983	Lewis, William F., assignor to Benedict & Burnham Manufacturing Company, Waterbury, Conn. Machine for manufacturing hinges.....	Jan. 17, 1871
119,090	Lewis, William H., assignor to the Scovill Manufacturing Company, New York, N. Y. Photographic posing-chair.....	Sept. 19, 1871
111,755	Lewis, William J., Pittsburgh, Pa. Wagon-hound, coupling-box, and plate.....	Feb. 14, 1871
111,756	Same..... Rubber block-holder for wagon-brakes.....	Feb. 14, 1871
114,019	Same..... Machine for making strap-hinges.....	April 25, 1871
120,887	Lewitt, William H., assignor to Thomas M. Cochrane, Saint Louis, Mo. Attachment for sewing-machines.....	Nov. 14, 1871
118,464	Ley, George W., England. Manufacture of ornamental articles in wood in imitation of carving.....	Aug. 29, 1871
114,834	Leyburn, William C., Sparta, Wis. Thrasher and grain-separator.....	May 16, 1871
	Libbey, William Landon. (See Webb, William George, assignor.)	
	Libby, Nelson F. (See Stimson, Lucius S., assignor.)	
120,753	Lidderd, John, Great Britain. Railway-chair.....	Nov. 7, 1871
	Liebenroth, A., and Von Auw. (See Schleicher, Charles, assignor.)	
	Liebenstein, Henry, <i>et al.</i> (See Lacey, Edward, assignor.)	
117,648	Lieberknecht, Gustav, North German Confederation. Apparatus for arranging hair.....	Aug. 1, 1871
	Liebermann, Charles, and Charles Graebe. (See Graebe & Liebermann.) (Two cases.) (Reissue.)	
120,754	Liebmann, Charles, Brooklyn, E. D., N. Y. Ice-house.....	Nov. 7, 1871
	Light, Joseph F., <i>et al.</i> (See Warren, William H., assignor.)	
120,201	Lightbody, George, New York, N. Y. Thermometric steam-gauge.....	Oct. 24, 1871
111,654	Lightfoot, John, England. Dyeing and printing textile fabrics.....	Feb. 7, 1871
116,727	Lighthall, William A., New York, N. Y. Heating feed-water for steam-boilers.....	July 4, 1871
116,728	Same..... Compound surface-condenser.....	July 4, 1871
117,898	Lightner, Henry, Neff's Mills, Pa. Cider-mill.....	Aug. 8, 1871
116,332	Likes, Michael, Mansfield, Ohio. Gang-plow.....	June 27, 1871
116,843	Liles, Francis M. C., Roanoke, Ala. Horse-power.....	July 11, 1871
4,671	Lilley, Charles S., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet-pattern..... (Design)	Feb. 21, 1871
4,672	Same..... same..... (Design)	Feb. 21, 1871
5,187	Same..... same..... (Design)	Aug. 8, 1871
	Lilley, John W., and Louis Siebert. (See Siebert & Lilley.)	
	Lilley, Miol E., and Abner W. Owen. (See Owen & Lilley.)	
117,899	Lillie, Lewis, Newark, N. J. Burglar-proof safe.....	Aug. 8, 1871
117,435	Lillie, S. Morris, Elizabeth, N. J. Protecting safes.....	July 25, 1871
117,900	Same..... Fire-extinguisher.....	Aug. 8, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,940	Lilly, Henry F., and James Walker. (<i>See Walker & Lilly.</i>)	
5,031	Liming, John, assignor to self and Charles C. Savery, Philadelphia, Pa. Refrigerative bucket..... (Design).....	May 23, 1871
116,844	Same..... Water-cooler and refrigerator..... (Design).....	June 20, 1871
5,239	Same..... Butter-kettle.....	July 11, 1871
120,755	Lindemann, Frederick, <i>et al.</i> (<i>See Dewey, Dudley & Lindemann.</i>)	
120,755	Lindemann, Otto, New York, N. Y. Bird-cage..... (Design).....	Aug. 29, 1871
112,360	Same..... Bottom of bird-cages.....	Nov. 7, 1871
111,355	Linder, Christian, Wurttemberg. Coal-hod..... (Design).....	Jan. 10, 1871
117,180	Lindhorst, Hermann Henry, Saint Louis, Mo. Carpet-cleaner.....	Jan. 31, 1871
114,694	Lindley, Noah H., Bridgeport, Conn. Earth-anger.....	July 18, 1871
112,360	Lindsay, James C. (<i>See Calhoun, Robert, assignor.</i>)	
119,623	Lindsay, John P., New York, N. Y. Water-meter.....	May 9, 1871
119,623	Lindsey, Landy T., Jackson, Tenn. Telegraph-apparatus.....	Mar. 7, 1871
119,276	Lindsey, Landy T., and Horace H. Curtiss, Jackson, Tenn. Printing-telegraph.....	Oct. 3, 1871
119,276	Lindsley, Aaron E., Paw Paw, Mich. Post-hole digger.....	Feb. 14, 1871
119,277	Lindsley, Isaac, Pawtucket, R. I. Loom for weaving hair-cloth, and fabric produced thereon.....	Sept. 26, 1871
119,278	Same..... Loom for weaving hair-cloth.....	Sept. 26, 1871
120,202	Same..... same.....	Sept. 26, 1871
121,179	Lindsley, Isaac, and Chase A. Stevens. (<i>See Stevens & Lindsley.</i>)	
113,676	Lindsley, Thales, New York, N. Y. Brick-kiln.....	Oct. 24, 1871
115,747	Same..... same.....	Nov. 21, 1871
119,870	Lingenfelter, Jacob, Bloody Run, Pa. Mill-stone exhaust.....	April 11, 1871
119,870	Same..... same.....	June 6, 1871
119,870	Lingenfelter, Theodore S., and Jacob S. Biddle. (<i>See Biddle & Lingenfelter.</i>)	
119,375	Link, William H., Shanesville, Ohio. Churn.....	Oct. 10, 1871
117,436	Linn, Robert M., Lookout Mountain, Tenn. Photographic filtering-apparatus.....	Sept. 26, 1871
118,138	Linnell, William N., assignor to Arza B. Keith, Cambridge, Mass. Peg-wood.....	July 25, 1871
113,537	Lins, Charles E., Ashland, Pa. Rubber-boot.....	Aug. 15, 1871
116,606	Linscott, Charles F., Chicago, Ill. Window-screen.....	April 11, 1871
111,128	Same..... Clothes-drier.....	July 4, 1871
121,389	Linscott, Charles F., assignor to Edward S. and Joseph Torrey, New York, N. Y. Method of securing joints of frames, &c.....	Jan. 24, 1871
116,463	Linsley, Newton, assignor to self and William Clement, Lena, Ill. Machine for rolling leather.....	Nov. 28, 1871
112,723	Lintner, Daniel H. (<i>See Iske, Anthony, assignor.</i>)	
118,139	Linton, William, Baltimore, Md. Filter.....	June 27, 1871
113,313	Linnville, Joseph L., and William Shimanour, Findlay, Ohio. Mode of attaching seats to wagons.....	Mar. 14, 1871
5,277	Lippincott, Charles D., <i>et al.</i> (<i>See Wood, James A., assignor.</i>)	
111,356	Lippold, Henry, assignor to self, Leroy Andrus, and George Haman, Silver Creek, N. Y. Machine for shelling corn.....	Aug. 15, 1871
112,935	Lipsey, Andrew B., New York, N. Y. Hoisting-apparatus.....	Jan. 31, 1871
113,313	Same..... West Hoboken, N. J. Wood-screw.....	Mar. 21, 1871
119,160	Same..... Clothes-pin.....	April 4, 1871
111,635	Lis, Andreas, Covington, Ky. Cigar-box..... (Design).....	Sept. 26, 1871
112,936	Lismann, Abraham, Germany. Machine for rolling metal.....	Sept. 19, 1871
112,936	Lister, Henry, Houston, Tex. Medical compound.....	Feb. 7, 1871
4,673	Litchfield, Lyman, assignor to self and Horace K. Osborne, Gouverneur, N. Y. Base-burning stove.....	Mar. 21, 1871
5,450	Little, Alvin H., <i>et al.</i> (<i>See Colby, Calvin M., assignor.</i>)	
113,179	Little, Andrew, New York, N. Y. Type..... (Design).....	Feb. 21, 1871
113,437	Same..... same..... (Design).....	Dec. 26, 1871
115,967	Little, B. F., <i>et al.</i> (<i>See Cary, Albert, assignor.</i>)	
115,968	Little, Edwin D. and Edgar C., Shabbonas Grove, Ill. Grinding-mill.....	Mar. 28, 1871
115,969	Little, Ezekiel C., and David H. Nation, Saint Louis, Mo. Cooking-stove.....	April 4, 1871
115,967	Little, George, Rutherford Park, N. J. Switch for galvanic batteries.....	June 13, 1871
115,968	Same..... Relay telegraph-instrument.....	June 13, 1871
115,969	Same..... Circuit-closing roller for telegraphic apparatus.....	June 13, 1871
115,970	Same..... Apparatus for perforating paper for telegraphic purposes.....	June 13, 1871
4,532	Same..... Arrangement of circuits for telegraphic purposes.....	June 13, 1871
120,288	Same..... Telegraph-apparatus..... (Reissue).....	Aug. 29, 1871
120,289	Same..... Automatic telegraphic transmitter.....	Oct. 24, 1871
120,290	Same..... Telegraph-recording instrument.....	Oct. 24, 1871
122,266	Same..... Telegraph-apparatus.....	Oct. 24, 1871
122,267	Same..... Automatic circuit-closer for telegraph apparatus.....	Oct. 24, 1871
114,573	Same..... Electro-magnetic apparatus.....	Dec. 26, 1871
118,375	Same..... Rheostat, or resistance-coil.....	Dec. 26, 1871
114,953	Little, Halsted W., assignor to self, John L. and William L. Little, Muncie, Ind. Sewing-machine.....	May 9, 1871
122,036	Little, Matthew, assignor to Amanda M. Starker, East Saginaw, Mich. Sad-iron heater.....	Aug. 22, 1871
117,181	Little, Robert, Freeport, Ill. Boring-machine. (Antedated May 12, 1871).....	May 16, 1871
117,182	Little, Robert B., assignor to Henry Blundell, agent, Providence, R. I. Lifting-jack for dumping-carts.....	Dec. 19, 1871
111,951	Little, Thomas C., Dixon, Ill. Wind-mill.....	July 18, 1871
4,585	Little, Thomas C., and Giles Mabie. (<i>See Mabie & Little.</i>)	
117,182	Little, William D. (<i>See Cumberworth, Anthony, assignor.</i>)	
111,951	Little, William H. and George H. Peabody, Mass. Car-truck.....	July 18, 1871
4,585	Littlefield, Dennis G., Albany, N. Y. Base-burning stove.....	Feb. 21, 1871
	Same..... Base-burner..... (Division A, reissue).....	Oct. 10, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,586	Littlefield, Dennis G., Albany, N. Y. Grate.....(Division B, reissue)...	Oct. 10, 1871
	Same.....Base-burning stove.....(Disclaimer filed)...	Sept. 11, 1871
121,950	Littlepage, Caleb V., Austin, Tex. Saw.....	Dec. 19, 1871
121,951	Same.....Method of forming saw-teeth.....	Dec. 19, 1871
120,292	Littmann, Franz, and Albert Vaase. (See Vaase & Littmann.)	Oct. 24, 1871
	Livingston, Fred. D., Norwich, Conn. Stop-valve.....	
	Livingston, John F., and Thomas F. Halley. (See Halley & Livingston.)	
117,901	Livingston, Matthew E., Manchester, Ill. Gate.....	Aug. 8, 1871
120,203	Livingston, Robert, Albany, N. Y. Hydraulic punching-machine.....	Oct. 24, 1871
	Lloyd, George A., and John H. Mooney. (See Mooney & Lloyd.)	
122,037	Lloyd, William, assignor to Gibbons L. Kely, New York, N. Y. Cornice for window-curtains. (Antedated Dec. 16, 1871.).....	Dec. 19, 1871
114,160	Lloyd, William D. C., Louisville, Ky. Cooking-stove.....	April 25, 1871
116,607	Lloyd, William M., New York, N. Y. Hoisting-machine.....	July 4, 1871
114,453	Lobdell, George G., Wilmington, Del. Mechanism for adjusting and securing car-wheels to axles.....	May 2, 1871
121,180	Lobdell, George G., and Jarrett Megraw, Wilmington, Del. Method of finishing chilled rolls.....	Nov. 21, 1871
	Lobdell, Jacob B., and Parley Upton. (See Upton & Lobdell.)	
	Locher, Theophilus, and Albert H. Hall. (See Hall & Locher.)	
110,925	Lochhead, William, Brooklyn, N. Y. Billiard-table.....	Jan. 10, 1871
5,240	Lochhead, William, assignor to Firth, Williams & Co., England. Carpet. (Design).....	Aug. 29, 1871
5,241	Same.....same.....(Design).....	Aug. 29, 1871
5,242	Same.....same.....(Design).....	Aug. 29, 1871
120,293	Lochner, Martin, Newark, N. J. Automatic fan.....	Oct. 24, 1871
111,952	Locke, Edward C., Providence, R. I. Method of attaching handles to scrapers.....	Feb. 21, 1871
4,682	Locke, Henry H., assignor to Douglas Bly, Pleasantville, Pa. Pump-rod attachment.....(Reissue).....	Dec. 26, 1871
118,542	Locke, John, Lewisburgh, Pa. Beef-steak mangle.....	Aug. 29, 1871
112,957	Locke, John C., Rochester, N. Y. Traveling-trunk.....	Mar. 21, 1871
115,748	Locke, John J., Whitestone, N. Y. Sheet-metal.....	June 6, 1871
113,069	Locke, Nathaniel C., Salem, Mass. Steam and water pressure regulator.....	Mar. 23, 1871
111,069	Locke, Sylvanus D., Janesville, Wis. Grain-binder.....	Jan. 17, 1871
121,290	Same.....same.....	Nov. 23, 1871
113,899	Locke, William H., Canton, Pa. Horse hay-rake.....	April 18, 1871
4,515	Locke, William H., and Henry Kelley. (See Kelley & Locke.)	
	Lockhart, Charles, and John Gracie, Pittsburgh, Pa. Still for hydrocarbons. (Reissue).....	Aug. 15, 1871
	Lockhart, Frew & Co. (See Gracie, John, assignor.)	
	Lockhead, James, and Thomas Roddick. (See Roddick & Lockhead.)	
117,651	Lockwood, Hamilton D., Charlestown, Mass. Atomizer.....	Aug. 1, 1871
120,756	Lockwood, Hayden J., Wayne, Pa. Clothes-drier.....	Nov. 7, 1871
120,965	Lockwood, Henry C., Baltimore, Md. Railway-car wheel.....	Nov. 14, 1871
122,038	Same.....Adjustable and detachable-strap for garments.....	Dec. 19, 1871
116,072	Lockwood, James F., Taylorville, Ill. Roof-gutter.....	June 20, 1871
115,071	Lockwood, J. George, West Davenport, N. Y. Horse hay-rake.....	May 23, 1871
122,039	Same.....same.....	Dec. 19, 1871
114,161	Lockwood, Philo, Auburn, Ind. Envelope.....	April 25, 1871
	Lockwood, Radcliffe B., et al. (See Williams, George L., assignor.)	
	Same.....(See Woodhouse, John V., assignor).....(Two cases.)	
115,971	Lockwood, Zephaniah, Saratoga Springs, N. Y. Sash-holder.....	June 13, 1871
118,140	Loeb, Peter, Dayton, Ohio. Ladle for pouring wax.....	Aug. 15, 1871
	Loeffelholz & Prier. (See Prier, Anton, assignor.)	
113,070	Loeffelholz, Adam, and Anton Prier, Milwaukee, Wis. Sash-holder for railroad-cars.....	Mar. 23, 1871
4,444	Loewenberg, Henry, New York, N. Y. Imitation braid, trimming, leather, &c. (Reissue).....	June 27, 1871
119,376	Loewenstein, Joseph M., New Orleans, La. Earth-closet.....	Sept. 26, 1871
122,123	Same.....same.....	Dec. 26, 1871
	Same.....(See Bull, Henry C., assignor.)	
113,782	Loftus, Robert G., Chelsea, Mass. Purification of oils and fats by acids.....	April 18, 1871
117,183	Lofvendahl, Joseph, Woonsocket, R. I. Loom-shuttle.....	July 18, 1871
	Logan, John P., and John L. Stewart. (See Stewart & Logan.)	
	Logan, Thomas, and John W. Cherry. (See Devenport, Frank P., assignor.)	
	Logan, Thomas, et al. (See Cherry, John Wesley, assignor.)	
	Logue, W. (See Doubler, John W. H., assignor).....(Three cases.)	
114,453	Lohsaud, Ernest, La Porte, Ind. Stove-damper.....	May 2, 1871
121,791	Lohse, William, New York, N. Y. Transparent cornucopia.....	Dec. 12, 1871
115,332	Lomas, John R., assignor to B. Shoninger, New Haven, Conn. Music-stool and book-rack combined.....	May 30, 1871
117,550	Same.....Tremolo for organs and melodeons.....	Aug. 1, 1871
117,738	Same.....Tremolo for reed-organs, &c.....	Aug. 8, 1871
5,317	Same.....Organ-case.....(Design).....	Oct. 17, 1871
121,390	Same.....Motor for tremolos of musical instruments.....	Nov. 23, 1871
119,777	Lomax, Alfred, La Porte, Ind. Double-tree.....	Oct. 10, 1871
112,156	Lombard, George W., Westminster, Mass. Sawing-machine.....	Feb. 23, 1871
113,314	Long, Charles B., Worcester, Mass. Machine for tapping gas and water fittings.....	April 4, 1871
115,222	Long, Christopher, Newark, Ohio. Animal-trap.....	May 23, 1871
112,822	Long, Eli W., and Isaac N. Patten, Memphis, Tenn. Cotton-press.....	Mar. 21, 1871
119,988	Long, George R., and Samuel King; said King assignor to said Long, Lanark, Ill. Hoisting-machine.....	Oct. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,524	Long, Hezekiah E., assignor of one-half interest to Burroughs & Co., Decatur, Ill. Machinists' vise.....	Oct. 31, 1871
117,090	Long, James, and Ezra R. Brown. (<i>See Brown & Long</i>).....(Two cases.)	July 18, 1871
116,202	Long, John, and Eugene Convers, Oswego, N. Y. School-desk. (Antedated July 3, 1871).....	June 20, 1871
120,294	Long, Nathan, Muncie, Ind. Gate.....	Oct. 24, 1871
118,732	Long, Richard, Pittsburgh, Pa. Water-cooler, filter, and ice-chest combined. (Antedated Oct. 11, 1871).....	Sept. 5, 1871
116,845	Long, William A. N., assignor to self and George H. Coates, Worcester, Mass. Milling-machine.....	July 11, 1871
112,157	Look, James H., jr., Rochester, Mass. Roofing-bracket.....	Feb. 28, 1871
118,465	Loomis, David, Joy Winters, and Albert Stark, Clyde, Ohio. Pump.....	Aug. 29, 1871
118,466	Loomis, George W., Tarrington, Conn. Brake for vehicles.....	Aug. 29, 1871
114,574	Loomis, John S., Brooklyn, N. Y. Machine for smoothing moldings.....	May 9, 1871
114,162	Loomis, Kellogg H., New York, N. Y. Device for operating cut-off valves. (Antedated April 14, 1871).....	April 25, 1871
112,259	Loomis, Kellogg H., assignor to James M. Boyd, New York, N. Y. Balance-valve. (Antedated April 19, 1871).....	Feb. 28, 1871
118,141	Loop, Robert, and John N. Stow. (<i>See Stow & Loop</i>).....	Aug. 15, 1871
119,624	Loos, Henry, Lawrence, Kans. Soap-compound.....	Oct. 3, 1871
118,029	Lord, Allen P., assignor to self and James E. Wisner, Friendship, N. Y. Wrench. (Antedated Sept. 30, 1871).....	Aug. 15, 1871
	Lord, Allen P., assignor to self and Johnson Higgins, Friendship, N. Y. Railway-rail chair. (Antedated Sept. 30, 1871).....	
	Lord, Edward, England. Mechanism for adjusting the rollers of carding-machines.....	
	Lord, John. (<i>See Sladdin, Joseph, assignor</i>).....	
	Lord, John, and John E. Carroll. (<i>See Carroll & Lord</i>).....	
118,467	Lord, Joseph A., Sanford, Me. Thread-cutter for sewing-machines.....	Aug. 29, 1871
112,158	Lord, Joseph E., Quincy, Ill. Spring bed-bottom.....	Feb. 28, 1871
121,113	Lord, Samuel L., New York, N. Y. Hoisting-machine.....	Nov. 21, 1871
110,984	Lorde, Ivory, Moline, Ill. Burial-case.....	Jan. 17, 1871
115,072	Lorenz, Jacob, Hamilton, Ohio. Apparatus for preserving and cooling beer.....	May 23, 1871
116,846	Loryea, Abram M., Portland, Oreg. Medical compound or bitters.....	July 11, 1871
4,604	Loth, Henry, Philadelphia, Pa. Sewing-machine stand.....(Design)	Jan. 24, 1871
4,431	Lothrop, Henry O., assignor of one-half interest to Albert H. Gilman, Milford, Mass. Machine for making wire ferrules.....(Reissue)	June 20, 1871
	Lothrop, Horace A. (<i>See Watson, Jeremiah M., assignor</i>).....	
121,792	Lothrop, Llewellyn D., Dover, N. H. Shipper-saddle.....	Dec. 12, 1871
111,953	Lough, John, Buckingham, Canada. Saw-tooth swage.....	Feb. 21, 1871
117,902	Loughhead, William T., and Henry Smiley. (<i>See Smiley & Loughhead</i>).....	Aug. 8, 1871
4,486	Loughridge, James H., Key West, Fla. Carriage-wheel.....	
	Louis, Lafayette, deceased, by El Dora Louis, administratrix, New York, N. Y. Melodeon.....(Reissue)	July 25, 1871
111,656	Love, George C., English Centre, Pa. Potato-digger.....	Feb. 7, 1871
	Love, John K., et al. (<i>See Rice, Henry J., assignor</i>).....	
121,391	Love, Louise E., New York, N. Y. Infants' head-dress.....	Nov. 28, 1871
111,553	Love, Robert C., Augusta, Me. Carpenters' work-bench.....	Feb. 7, 1871
121,637	Lovegrove, Thomas J., Philadelphia, Pa. Water-elevator.....	Dec. 5, 1871
118,030	Lovegrove, Thomas J., assignor to self and George H. Myers, Philadelphia, Pa. Steam-boiler.....	Aug. 15, 1871
121,793	Lovegrove, Thomas J., assignor of one-half interest to Henry S. Lansing, Philadelphia, Pa. Rotary pump, or water-elevator.....	Dec. 12, 1871
	Lovejoy, Daniel, and George F. Butterfield, deceased, by Elizabeth S. Butterfield, administratrix, Lowell, Mass. Grinding and polishing machine.....(Extension)	Oct. 24, 1871
	Same.....Grinding and polishing machine.....(Disclaimer filed)	Oct. 23, 1871
112,057	Lovejoy, William H., assignor to self and Christopher Robinson, Lowell, Mass. Mode of lasting shoes.....	Feb. 21, 1871
115,873	Loveless, Charles B., Syracuse, N. Y. Apparatus for carbureting hydrogen-gas.....	June 13, 1871
	Lovell, Edward Bovine, et al. (<i>See Ellis, George Henry, assignor</i>).....	
114,575	Lovell, Joseph J., assignor of three-fourths interest to George W. Millar, New York, N. Y. Hose-coupling.....	May 9, 1871
	Loveridge, Sears M. (<i>See Godfrey, Joseph S., assignor</i>).....(Four cases.)	
	Same.....(<i>See Hainsworth, William, assignor</i>).....(Reissue.)	
113,677	Lovett, Charles W., jr., Boston, Mass. Shot-cartridge.....	April 11, 1871
	Lovett, James. (<i>See Buck, Chauncey S., assignor</i>).....	
	Lovett, James, and Chauncey S. Buck. (<i>See Buck & Lovett</i>).....	
	Lovewell, Sewall K., et al. (<i>See Foster, Calvin A., assignor</i>).....	
121,528	Low, John B., Homerville, Ohio. Bridle-blinder for horses.....	Dec. 5, 1871
111,657	Low, Peter, Cleveland, Ohio. Cooking-stove.....	Feb. 7, 1871
120,590	Lowden, George, Brooklyn, N. Y. Portable gas-apparatus.....	Nov. 7, 1871
122,040	Lowe, Alexander, Nashville, Tenn. Uterine-supporter.....	Dec. 19, 1871
	Lowe, David H., and Levi H. Colborne. (<i>See Colborne & Lowe</i>).....	
120,821	Lowe, Garrett C., New York, N. Y. Bottle-stopper.....	Nov. 14, 1871
117,789	Lowe, Gilbert B., Janesville, N. Y. Elevator.....	Aug. 8, 1871
116,729	Lowe, James, Guilford County, N. C. Drying and preserving fruit.....	July 4, 1871
	Lowe, Oliver D., and Sherman Corsett. (<i>See Corsett & Lowe</i>).....	
	Lowell Manufacturing Company. (<i>See Campbell, Robert R., assignor</i>) (Fifty-one cases.) (Design.)	
	Same.....(<i>See Lilley, Charles S., assignor</i>)(Three cases.) (Design.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Lowell Manufacturing Company. (<i>See</i> McNair, David, assignor)....(Design.)	
	Lowell Oil-Cup Company. (<i>See</i> Gates, Stephen F., assignor.)	
117,091	Same.....(<i>See</i> Hoyt & Crane, assignors.)	
111,357	Lowen, Seth, Temperanceville, Pa. Machine for flanging boiler-heads	July 18, 1871
	Lowenstein, Joseph M., New Orleans, La. Fertilizing compound	Jan. 31, 1871
	Same.....(<i>See</i> Bull, Henry C., assignor.)	
116,730	Loweree, William W., and George A. Sanderson, Auburn, N. Y. Piston-facing machine.....	July 4, 1871
115,621	Lowey, Robert G., assignor to George H. Sauborn, Brooklyn, N. Y. Book-binding machine.....	June 6, 1871
117,092	Lowth, Michael F., and Orlean H. Porter, Wabashaw, Minn. Attaching cultivator-teeth to beams	July 18, 1871
	Lowthrop, Francis C., Trenton, N. J. Iron-truss frame for bridges. (Extension) ..	June 24, 1871
112,724	Loyd, Samuel, New York, N. Y. Permutation-lock.....	Mar. 14, 1871
112,823	Same.....Toy-puzzle.....	Mar. 21, 1871
113,316	Same.....Combination-lock.....	April 4, 1871
4,793	Same.....Puzzle-block.....(Design) ..	April 11, 1871
120,822	Same.....Permutation padlock.....	Nov. 14, 1871
	Lucas, George E. (<i>See</i> Hawkes, David B., assignor.)	
115,622	Lucas, Robert B. and William W., Cleveland, Ohio. Process of separating oil and naphtha from paraffine, wax, &c.	June 6, 1871
111,658	Lucas, William F., Cleveland, Ohio. Apparatus for extracting oil from bone-dust.....	Feb. 7, 1871
118,031	Lucius, Albert, New York, N. Y. Hydraulic hoisting-apparatus.....	Aug. 15, 1871
119,161	Luckenbach, Henry and George, assignors to William F. Warburton, Philadelphia, Pa. Fire-escape ladder.....	Sept. 19, 1871
119,935	Ludden, William A., Flushing, N. Y. Pencil-case	Oct. 17, 1871
113,180	Ludington, Zalmou, Fayette County, Pa. Peat-machine	Mar. 28, 1871
119,378	Ludlow, Henry G., Troy, N. Y. Sliding-stop valve.....	Sept. 26, 1871
110,926	Ludlow, Henry G., assignor to Ludlow Valve Manufacturing Company, Troy, N. Y. Sliding-stop valve.....	Jan. 10, 1871
4,250	Ludlow, Henry G., 2d, assignor to Ludlow Valve Manufacturing Company, Troy, N. Y. Sliding-stop valve.....(Reissue) ..	Jan. 31, 1871
121,181	Ludlow, Washington L., Cleveland, Ohio. Gate.....	Nov. 21, 1871
122,041	Same.....Postal card.....	Dec. 19, 1871
	Ludwig, Roth, and William Pryor. (<i>See</i> Pryor & Ludwig.)	
116,464	Lufkin, Amos D., Cleveland, Ohio. Sewing-machine treadle	June 27, 1871
119,524	Lufkin, Charles M., Unity, N. H. Wagon-brake. (Antedated Sept. 25, 1871)....	Oct. 3, 1871
113,678	Lugenbell, Peter, and William A. Ford, Greensburgh, Ind. Slate-frame	April 11, 1871
	Lugg, John S., and Cyrus H. Latham. (<i>See</i> Latham & Lugg.) (Two cases.) (Reissue.)	
	Same.....(<i>See</i> Latham & Lugg.)	
112,725	Lugo, Orazio, Baltimore, Md. Manufacture and treatment of alcoholic spirits. .	Mar. 14, 1871
112,726	Lugo, Orazio, and James B. McPherson, Baltimore, Md. Cooling air, and in the manufacture of ice.....	Mar. 14, 1871
	Lugo, Orazio, and David K. Tuttle. (<i>See</i> Tuttle & Lugo.)	
110,985	Lugrin, Horatio N. H., Chelsea, Mass. Door-check	Jan. 17, 1871
115,073	Lull, Harvey, Hoboken, N. J. Auxiliary spring for treadles.....	May 23, 1871
118,253	Same.....Shade-rack.....	Aug. 22, 1871
119,778	Lull, Philo, Norwich, N. Y. Tanners' rinsing-wheel	Oct. 10, 1871
119,625	Lum, Henry B., Sandusky, Ohio. Blind-slat operator	Oct. 3, 1871
112,727	Lum, William F., Waterloo, Wis. Combined bag holder and filler.....	Mar. 14, 1871
121,529	Same.....Bag holder and filler.....	Dec. 5, 1871
117,306	Lumpkin, George B., Lexington, Ga. Device for detaching horses from vehicles.....	July 25, 1871
112,728	Lundy, John James, North Britain. Compound for lubricating wool.....	Mar. 14, 1871
113,679	Same.....Lubricating wool during the process of manufacture. (Antedated April 4, 1871).....	April 11, 1871
	Lundy, John J., <i>et al.</i> (<i>See</i> Richardson, Lundy & Irvine).....(Reissue.)	
114,695	Lungley, Charles, England. Apparatus for cleaning tubes, flues, &c.	May 9, 1871
116,608	Lungren, William H., Baltimore, Md. Hot-water heater	July 4, 1871
	Lusc, Daniel F., <i>et al.</i> (<i>See</i> Keller, John H., assignor).....(Reissue.)	
	Luse, Daniel F., and John H. Keller. (<i>See</i> Keller & Luse.)	
	Lusk, Robert L., <i>et al.</i> (<i>See</i> Peregoy, Dabney N. M., assignor.)	
111,220	Luther, James H., Petroleum Centre, Pa. Tool for cutting off pipes in oil-wells.....	Jan. 24, 1871
111,221	Same.....Tool for cutting off auger-stems in oil-wells.....	Jan. 24, 1871
	Luther, Jonathan, <i>et al.</i> (<i>See</i> Skinner, Henry A., assignor.)	
116,333	Luther, Joseph O., and Peter Staab, Grafton, Wis. Clothes-drying machine.....	June 27, 1871
113,317	Lutkewitte, Francis H., Saint Louis, Mo. Apparatus for carbureting air and gas.....	April 4, 1871
118,733	Luttenchlager, Joseph, New York, N. Y. Inner-sole for boots and shoes	Sept. 5, 1871
120,079	Luttgens, Henry Augustus, Paterson, N. J. Body-loop for carriages. (Antedated Oct. 5, 1871).....	Oct. 17, 1871
119,162	Lutz, Herman, New York, N. Y. Children's carriage	Sept. 19, 1871
120,757	Same.....Folding-carriage for children.....	Nov. 7, 1871
112,260	Lutz, William H., assignor to self and William Boas, Lancaster, Pa. Stove-pipe damper	Feb. 28, 1871
116,609	Lyall, James, New York, N. Y. Shuttle for looms	July 4, 1871
111,222	Lyford, Benjamin F., San Francisco, Cal. Embalming.....	Jan. 24, 1871
111,358	Same.....Disinfecting and ventilating burial-vaults.....	Jan. 31, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Lyford, Francis (<i>See Day, Alfred, assignor.</i>)	
	Lyle, Henry R. (<i>See Stine, William, assignor.</i>)	
121,530	Lyman, Azel S., New York, N. Y. Accelerating fire-arm.....(Extension)...	Feb. 2, 1871
4,683	Same.....Refrigerating-car. (Antedated Nov. 24, 1871.)	
	Same.....Method of cooling and ventilating rooms.....(Reissue)...	Dec. 5, 1871
	Lyman, Azel S., assignor to the Accelerating Fire-Arms Company, New York, N. Y. Accelerating fire-arms.....(Disclaimer filed)...	Dec. 26, 1871
117,184	Lyman, Benjamin Smith, Philadelphia, Pa. Solar compass.....	Dec. 15, 1871
111,954	Lyman, Josiah, Lenox, Mass. Beam-compass.....	July 18, 1871
110,986	Lyman, Myron W., Chicago, Ill. Cutlery.....	Feb. 21, 1871
110,987	Lyman, Myron W., and Franklin C. Wyman, Chicago, Ill. Shoemakers' tool. (Antedated Jan. 14, 1871).....	Jan. 17, 1871
111,070	Lyman, William I., East Hampton, Mass. Hub for vehicles.....	Jan. 17, 1871
121,531	Lyman, William W., West Meriden, Conn. Sash-holder.....	Jan. 17, 1871
113,680	Lyman, John T., Jeffersonville, Ind. Bit-brace.....	Dec. 5, 1871
121,055	Lynch, Charles, assignor to self, Daniel A. Matthews, and Henry McGraw, Detroit, Mich. Lubricator for steam-engines.....	April 11, 1871
	Lynch, John, and David Smith. (<i>See Smith & Lynch.</i>)	
4,653	Lynch, John Augustus, Boston, Mass. Engine-governor case.....(Design)...	Nov. 21, 1871
112,159	Same.....Governor for steam-engines.....	Feb. 14, 1871
4,794	Same.....Steam-engine governor-case.....(Design)...	Feb. 28, 1871
112,058	Lynde, John D., Philadelphia, Pa. Engine-governor.....	April 11, 1871
117,903	Same.....Governor for steam-engines.....	Feb. 21, 1871
110,862	Lynn, M. N., New Albany, Ind. Steam-generator.....	Aug. 8, 1871
122,042	Same.....Steam-generator and feed-water heater.....	Jan. 10, 1871
116,610	Lynn, M. N., assignor to self and E. H. Mann, New Albany, Ind. Steam-plov.....	Dec. 19, 1871
116,611	Same.....Water-gauge, with feeder-attachments.....	July 4, 1871
117,307	Same.....Steam-carriage for plows.....	July 4, 1871
113,181	Lyon, James W., Brooklyn, N. Y. Shade-holder for lamps. (Antedated March 18, 1871).....	July 25, 1871
4,620	Lyon, John H., New York, N. Y. Lock and detector.....(Reissue)...	Mar. 23, 1871
110,988	Lyon, John M. P., Bellefonte, Ala. Cotton scraper and harrow. (Antedated Jan. 9, 1871).....	Oct. 31, 1871
122,268	Lyon, Joseph W., Chicago, Ill. Mechanism for operating attachments in sewing-machines.....	Jan. 17, 1871
	Same.....	Dec. 26, 1871
	Lyon, Robert W., <i>et al.</i> (<i>See Reese, Abram, assignor.</i>)	
114,696	Lyon, Thomas W., Bennett, Pa. Reverberatory furnace and heating rims of car-wheels.....	May 9, 1871
113,318	Lyon, William, Camp Halleck, Nev. Swivel-pin for tethering animals.....	April 4, 1871
115,074	Lyon, William M., Salem, Ohio. Railway stock-car.....	May 23, 1871
	Lyons, James M., and John J. Lahaye. (<i>See Lahaye & Lyons.</i>)	
4,953	Lyons, Thomas, assignor to Russell & Erwin Manufacturing Company, Hartford, Conn. Oven-shovel.....(Design)...	May 30, 1871
115,333	Lyons, Thomas M., New York, N. Y. Sheave and rail for sliding-doors.....	May 30, 1871
121,723	Maas, Jacob, Westfield, Mass. Mattress.....	Dec. 12, 1871
114,309	Mabie, Giles, and Thomas C. Little; said Mabie assignor to said Little; Dixon, Ill. Windmill.....	May 2, 1871
121,392	Mabie, Giles, Dixon, Ill. Wind-wheel.....	Dec. 5, 1871
121,532	Macauley, James A., assignor to self and John Macauley, sr., Wheeling, W. Va. Motor for sewing-machines.....	Dec. 5, 1871
111,129	Macauley, T. A., New York, N. Y. Sewing-machine.....	Jan. 24, 1871
111,576	MacCartney, William N., assignor to John Cinnamon, Scotland. Reducing rubber. (Antedated April 27, 1871).....	May 9, 1871
122,269	Macdonald, John C., Saint Louis, Mo. Valve-gear for steam-engines.....	Dec. 26, 1871
114,020	MacDonald, John C., and J. Calverly, England. Printing-press.....	April 25, 1871
116,203	Macfarlane, James, Mansfield, Conn. Silk-winding apparatus.....	June 20, 1871
115,749	Machen, James P., Centreville, Va. Broad-cast fertilizer-distributor.....	June 6, 1871
115,750	Same.....same.....	June 6, 1871
117,551	Machen, William H. and Henry P. L., jr., Toledo, Ohio. Brick-machine.....	Aug. 1, 1871
114,454	Mack, Charles H., Portland, Oreg. Securing dental fillings.....	May 2, 1871
117,904	Same.....Dental instrument.....	Aug. 8, 1871
112,160	Mack, Orville F., Charlestown, Mass. Urn for stoves.....	Feb. 28, 1871
111,071	Mack, William A., Norwalk, Ohio. Embroidering-attachment for sewing-machines.....	Jan. 17, 1871
111,130	Same.....Gathering-attachment for sewing-machines.....	Jan. 24, 1871
111,359	Same.....Sewing-machine.....	Jan. 31, 1871
118,734	Mack, William B., England. Injector for steam-boilers.....	Sept. 5, 1871
113,783	Mackay, Donald D., Whitestone, N. Y., and Cyrus Butler, New York, N. Y. Plumbago-oil can.....	April 18, 1871
120,653	Same.....Oil-can.....	Nov. 7, 1871
112,261	Mackay, John C., Ionia, Mich. Lath-machine.....	Feb. 28, 1871
111,659	Mackay, John R., assignor of one-third interest to George Gibbons, Meriden, Conn. Faucet.....	Feb. 7, 1871
	Mackellar, Smiths & Jordan. (<i>See Smith, Richard, assignor.</i>) (Five cases.) (Design.)	
	Same.....(<i>See Kay, Alexander, assignor.</i>).....(Design.)	
	Macken, James, and James Thornton. (<i>See Thornton & Latta, assignors.</i>)	
114,163	Mackenzie, Philip W., Blauveltville, N. Y. Blast by steam-jet for furnaces, &c.....	April 25, 1871
115,334	Same.....Exhaust-apparatus for gas-works.....	May 30, 1871
	Same.....Cupola and other furnace.....(Extension)...	Aug. 17, 1871
121,533	Same.....Pneumatic water-elevator. (Antedated Nov. 18, 1871).....	Dec. 5, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,538	Mackinnon, Hector, Cleveland, Ohio. Bureau traveling-trunk.....	April 11, 1871
	Mackintosh, Charles H. (<i>See</i> Griffith, Collins W., assignor.)	
	Same.....(<i>See</i> Milner, Edward, assignor.)	
115,335	Macomb, John, Chicago, Ill. Elevator.....	May 30, 1871
118,468	Same.....same.....	Aug. 29, 1871
	Macomber, Dennis. (<i>See</i> Chappell, John W., assignor.)	
114,310	Macon, Hezekiah, assignor to Joshua Hunt, Providence, R. I. Belt-shipping device for self acting mules.....	May 2, 1871
111,360	Macqueen, Charles D., Philadelphia, Pa. Lamp.....	Jan. 31, 1871
	Same.....(<i>See</i> Oat, Alfred A., assignor.)	
121,056	Maddaus, Oscar. Kite.....	Nov. 21, 1871
111,609	Madden, De Marcus, assignor of one-half interest to Ralph T. Wood and Farley Holmes, Penn Yan, N. Y. Base-burning stove.....	Mar. 14, 1871
	Madden, Edward M., and Shattiece D. Roberts, administrators. (<i>See</i> Roberts, Thomas D.)	
121,591	Madden, James W., Buffalo, N. Y. Fluting-machine.....	Nov. 7, 1871
	Madder Color Company. (<i>See</i> Paraf, Alfred, assignor).....(Two cases.)	
120,986	Maddy, John, Clearfield, Pa. Grafting-tool.....	Nov. 14, 1871
114,164	Madeley, Thomas, Rochester, N. Y. Mold for sewer-pipe.....	April 25, 1871
114,577	Same.....Artificial stone.....	June 20, 1871
116,972	Madge, Oscar D., Washington, D. C. Padlock.....	May 9, 1871
113,319	Magee, Bernard J., and James F. Wall, Watertown, Mass. Paper-box.....	July 11, 1871
5,032	Magee, John, assignor to Bigelow Carpet Company, New York, N. Y. Carpet. (Design).....	April 14, 1871
5,033	Same.....Carpet.....(Design).....	June 20, 1871
5,034	Same.....same.....(Design).....	June 20, 1871
5,035	Same.....same.....(Design).....	June 20, 1871
5,047	Same.....same.....(Design).....	June 27, 1871
5,109	Same.....Carpet-pattern.....(Design).....	July 11, 1871
5,110	Same.....Mat.....(Design).....	July 11, 1871
5,111	Same.....same.....(Design).....	July 11, 1871
5,300	Same.....Carpet-pattern.....(Design).....	Oct. 3, 1871
119,091	Magee, William, Jamaica, N. Y. Alloy for the manufacture of plow mold-boards.	Sept. 19, 1871
4,684	Same.....Copper alloy for plow mold-boards, and for other purposes. (Reissue).....	Dec. 26, 1871
	Magill, Wesley W., and David K. Innes. (<i>See</i> Innes & Magill.)	
117,308	Magoon, Israel P., Saint Johnsbury, Vt. Locomotive.....	July 25, 1871
112,938	Magrath, Michael, New York, N. Y. Chain for hanging sash.....	Mar. 21, 1871
111,361	Magruder, Elias, Cap Au Gris, Mo. Hoisting-fork.....	Jan. 31, 1871
115,874	Mahan, Ariel H., Handen, N. Y. Feeding-device for cattle-stalls.....	June 13, 1871
117,437	Mahan, Frank M., assignor of one-half interest to Prinnus Emerson, Memphis, Tenn. Propulsion of canal-boats.....	July 25, 1871
	Maher, William T. (<i>See</i> Smith, William T., assignor.)	
116,847	Mahlon, James W., Brooklyn, N. Y. Ratchet-drill.....	July 11, 1871
118,619	Same.....New York, N. Y. Wrench.....	Aug. 29, 1871
	Mahoney, John B., <i>et al.</i> (<i>See</i> Vaughan, Daniel, assignor.)	
	Mahurin, Henry C. (<i>See</i> Russell, Titus H., assignor).....(Two cases.)	
	Maidhof, W. J. (<i>See</i> Boch, Nicholas, assignor.)	
115,875	Maier, Philip, Mapleton, Wis. Cultivator.....	June 13, 1871
111,462	Main, Thomas, Green Point, N. Y. Propulsion of canal-boats.....	Jan. 31, 1871
114,455	Maish, Lewis, Minneapolis, Minn. Spindle-step box.....	May 2, 1871
120,295	Maitland, John, Newburgh, Ohio. Railway-rail.....	Oct. 24, 1871
121,724	Same.....Device for locking nuts.....	Dec. 12, 1871
114,311	Maitland, Jones R., Little Rock, Ark. Machine for cutting and bending sheet-metal.....	May 2, 1871
	Maitland, Thomas, <i>et al.</i> (<i>See</i> Berndt & Barsch, assignors.)	
115,491	Makechney, John, Trenton, N. J. Roller for wringers.....	May 30, 1871
115,751	Makely, Wesley, Alexandria, Va. Still for spirits, &c. (Antedated June 2, 1871) ..	June 6, 1871
118,620	Malhoit, Charles, Sutton, Mass. Shoulder-tool for shoemakers.....	Aug. 29, 1871
119,711	Mallick, Wesley, Erie, Pa. Staple-machine.....	Oct. 10, 1871
4,760	Malkin, Leir G., assignor to Hartford Carpet Company, New York, N. Y. Carpet-pattern.....(Design).....	April 4, 1871
4,761	Same.....same.....(Design).....	April 4, 1871
4,762	Same.....same.....(Design).....	April 4, 1871
4,763	Same.....same.....(Design).....	April 4, 1871
4,764	Same.....same.....(Design).....	April 4, 1871
4,765	Same.....same.....(Design).....	April 4, 1871
4,766	Same.....same.....(Design).....	April 4, 1871
4,767	Same.....same.....(Design).....	April 4, 1871
4,889	Same.....same.....(Design).....	May 9, 1871
5,076	Same.....same.....(Design).....	July 4, 1871
113,182	Mallett, Francis W., New Haven, Conn. Machine for scouring needles.....	Mar. 28, 1871
119,525	Mallett, Francis W., assignor to the Mallett Manufacturing Company, New Haven, Conn. Machine for polishing needles.....	Oct. 13, 1871
114,312	Mallin, John, Chicago, Ill. Coal and wood box.....	May 2, 1871
5,334	Mallinson, William, assignor to Joseph Wild & Co., England. Carpet-pattern.....(Design).....	Oct. 31, 1871
5,335	Same.....Carpet-pattern.....(Design).....	Oct. 31, 1871
5,336	Same.....same.....(Design).....	Oct. 31, 1871
4,737	Mallinson, William, assignor to W. & I. Sloane, England. Carpet-pattern.....(Design).....	Mar. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,794	Mallon, James, and Henry Von Phul, jr., Holly Wood, La. Cultivator	Dec. 12, 1871
	Mallory, Amos, <i>et al.</i> (See Tucker, Frederick O., assignor.)	
	Mallory, Burton. (See Andrews, William H., assignor.)	
112,059	Mallory, David D., Mystic Bridge, Conn. Quartz-mill	Feb. 21, 1871
112,939	Mallory, George W., Mystic Bridge, Conn. Boat-lowering apparatus	Mar. 21, 1871
112,473	Mallory, James H., La Porte, Ind. Railroad cattle-guard gate	Mar. 7, 1871
120,296	Same.....Ironing-table. (Antedated Oct. 13, 1871)	Oct. 24, 1871
117,438	Malinstrom, Peter E., and Paul Dummer, New York, N. Y. Stop-cock.....	July 25, 1871
110,989	Malone, Patrick, assignor to self and Charles C. Laundry, New Orleans, La. Earth-closet.....	Jan. 17, 1871
118,776	Malone, Thomas W., Mason City, W. Va. Apparatus for forcing fluids.....	Sept. 5, 1871
119,626	Maloney, James A., Georgetown, D. C. Metallic sieve for grain-separators	Oct. 3, 1871
120,987	Maloney, James A., assignor of two-thirds interest to J. Q. Larman and Riley A. Shinn, Georgetown, D. C. Grain cleaning, scouring, and decorticating machine.....	Nov. 14, 1871
112,610	Maloney, Thomas, Des Moines, Iowa. Manufacture of bottled mineral-water.....	Mar. 14, 1871
121,291	Manard, Alphens B., Rockford, Ill. Copy-holder.....	Nov. 28, 1871
	Manch, Lewis H. (See Wunderlich, Gemaro, assignor.)	
119,627	Mandigo, Jeremiah, Wayland, Mich. Hay-rack.....	Oct. 3, 1871
	Manhattan Brush Manufacturing Company. (See Rogers & Wilkins, assignors.).....(Reissue.)	
	Same.....(See Harvey, Hayward A., assignor.)	
113,539	Manhattan Packing Manufacturing Company. (See Murfey, Eliza D., assignor.) Berth for sleeping-cars	April 11, 1871
110,768	Mann, Austin S., Saint Louis, Mo. Metallic heel	Jan. 3, 1871
116,973	Same.....same.....	July 11, 1871
113,183	Mann, Charles B., assignor to self and Stephen S. Mann, Baltimore, Md. Lamp-burner	Mar. 28, 1871
114,954	Mann, Charles B. and Stephen S., Baltimore, Md. Lamp.....	May 16, 1871
4,572	Same.....same.....(Reissue).....	Sept. 26, 1871
	Mann, Edward H. (See Lynn, Mirabeau N., assignor).....(Three cases.)	
4,281	Mann, Jacob J. and Henry F.; said Jacob J. Mann assignor to said Henry F. Mann, Pittsburgh, Pa. Harvester.....(Reissue).....	Feb. 28, 1871
118,735	Mann, John, Tuscola, Ill. Steam-generator.....	Sept. 5, 1871
5,291	Mann, John Henry, Syracuse, N. Y. Trolling-spoon.....(Design).....	Sept. 26, 1871
121,182	Same.....same.....(Design).....	Nov. 21, 1871
	Mann, Joseph. (See Ridout, Moses T., assignor.)	
4,637	Mann, Robert J., Dallas City, Ill. Sieve.....(Design).....	Feb. 7, 1871
113,184	Same.....same.....	Mar. 28, 1871
117,790	Same.....Burlington, Iowa. Method of constructing sieves.....	Aug. 8, 1871
111,463	Manneck, Henry, New York, N. Y. Box.....	Jan. 31, 1871
118,866	Same.....Muff and collar box.....	Sept. 12, 1871
119,936	Manning, John H., assignor to Edwin L. Buttrick, Chicago, Ill. Fire-extinguisher.....	Oct. 17, 1871
117,905	Manning, John J., assignor to self, William N. Manning, F. Tarr, jr., F. W. Homans, and Friend & Smith, Rockport, Mass. Drying glue	Aug. 8, 1871
121,114	Manuy, Abram M., Lena, Ill. Cultivator	Nov. 21, 1871
121,115	Same.....same.....	Nov. 21, 1871
	Manuy, Frederick H. (See Younglove, M. C., assignor).....(Reissue.)	
	Same.....(See Johnson, Isaac A., assignor.)	
112,361	Manuy, John Pells, Rockford, Ill. Harvester	Mar. 7, 1871
112,362	Same.....same.....	Mar. 7, 1871
112,363	Same.....Harvester-rake	Mar. 7, 1871
112,940	Same.....same.....	Mar. 21, 1871
112,941	Same.....same.....	Mar. 21, 1871
112,942	Same.....Harvester.....	Mar. 21, 1871
114,165	Same.....Harvester-rake	April 25, 1871
114,166	Same.....same.....	April 25, 1871
	Manuy, John P., Rockford, Ill. Harvester.....(Extension).....	July 6, 1871
	Same.....same.....(Extension).....	July 6, 1871
	Same.....same.....(Extension).....	July 6, 1871
	Same.....same.....(Extension).....	July 6, 1871
	Same.....same.....(Extension).....	July 6, 1871
	Same.....same.....(Extension).....	Oct. 20, 1871
121,881	Same.....Harvester-gearing. (Antedated Nov. 30, 1871).....	Dec. 12, 1871
	Same.....(See Holly, Solomon T., assignor.)	
119,163	Mansell, Richard. (See De Poe, James H., assignor.)	
114,021	Mansfield, George H., Concord, N. H. Planing-machine	Sept. 19, 1871
	Mansfield, Martin H., Ashland, Ohio. Discharge-spout for thrashing, hulling, and separating machines	April 25, 1871
114,315	Same.....Thrashing-machine	May 2, 1871
115,223	Same.....Thrashing-machine and separator.....	May 23, 1871
4,566	Same.....Machine for thrashing, hulling, and cleaning clover-seed....(Reissue).....	Sept. 19, 1871
120,988	Mansir, Job, Richmond, Me. Watchmakers' chuck.....	Nov. 14, 1871
114,314	Manson, Charles, Boston, Mass. Bit-stock.....	May 2, 1871
120,654	Manson, George W., assignor to self and Samuel Keefer, New York, N. Y. Device for operating sewing-machines	Nov. 7, 1871
121,638	Manson, George W., assignor of one-half interest to Samuel Keefer, New York, N. Y. Motor for sewing-machines.....	Dec. 5, 1871
113,071	Manton, George W., Fredonia, N. Y. Machine for cutting veneering into strips.....	Mar. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
117,552	Manton, Joseph, Montreal, Canada. Breech-loading fire-arm	Aug. 1, 1871
116,848	Manton, Joseph P., Providence, R. I. Attachment for ratlins	July 11, 1871
	Manton, Joseph P., and George H. Babcock. (See Babcock & Wilcox, assignors)	
114,955	Manuel, Calvin F., and Daniel M. Leonard, La Crosse, Wis. Spring bed-bottom	May 16, 1871
	Mapes, Andrew J., and Joseph M. Hughes. (See Hughes & Mapes.)	
	Maquet, Francis. (See Solari, Antonio, assignor.)	
120,297	Marable, Thomas E., assignor to self, Joseph B. Dunn, and Starke A. Plummer, Petersburg, Va. Baling-press	Oct. 24, 1871
111,464	Marble, Ezra P., Sutton Centre, Mass. Manufacture of brooms	Jan. 31, 1871
114,167	Same. Shuttle for looms	April 25, 1871
	Marble, E. T., et al. (See Pitts, Aldrich & Marble.)	
112,060	Marchant, Robert Mudge, England. Air-pump	Feb. 21, 1871
115,876	Same. Steam and other motive-power engines	June 13, 1871
115,877	Same. Process of obtaining motive-power	June 13, 1871
120,298	Same. Steam and other engines	Oct. 24, 1871
4,795	Marcile, Eugene, New York, N. Y. Watch-plate	April 11, 1871
117,652	Marcotte, Maxime J., Saint Louis, Mo. Composition for journals and bearings	Aug. 1, 1871
116,731	Marcy, Isaac S., Nashua, N. H. Hair-curler	July 4, 1871
114,168	Marden, Daniel G., Memphis, Tenn. Horse-power	April 25, 1871
	Margedant, William C., et al. (See McBeth, Bentel & Margedant). (Design.)	
	Same. (See McBeth, Bentel, Margedant & Climer.)	
114,315	Margerum, Mahlon R., assignor to Benjamin L. Disbrow and James G. Van Cleeve, Trenton, N. J. Corpse-preserver	May 2, 1871
	Margesson, William, & Son, et al. (See Close, Walter R., assignor.)	
118,032	Mariner, George A., and Folsom Dorsett, assignors to the United States Pipe-Protecting Company, Chicago, Ill. Coating for iron, &c	Aug. 15, 1871
115,336	Markham, Cameron P., and William H., Rogersville, N. Y. Bag-tie	May 30, 1871
112,364	Markham, Homer C., Collinsville, N. Y. Cheese-curd sink	Mar. 7, 1871
112,365	Markham, Homer C. and De Witt C., Collinsville, N. Y. Mowing-machine	Mar. 7, 1871
118,621	Markham, Solomon, Flat Rock, Kans. Grain-drill	Aug. 29, 1871
115,752	Markle, Henry, Spencer, Ind. Miter-box	June 6, 1871
117,439	Markley, Charles, New York, N. Y. Hair-curler	July 25, 1871
114,316	Marks, Lewis, San Francisco, Cal. Carburetor for air and gas	May 2, 1871
117,791	Marks, Myer, assignor to William A. Pond, England. Digitorium	Aug. 8, 1871
116,612	Marks, Robert, and Andrew C. Behne, Connersville, Ind. Grain-drill	July 4, 1871
	Marks, S. A. H., et al. (See Frey, John A., assignor.)	
111,855	Marland, Obadiah, Boston, Mass. Machine for bending wood	Feb. 14, 1871
120,299	Marlow, George, Chicago, Ill. Gas and smoke consuming apparatus	Oct. 24, 1871
121,882	Marmaduke, Marion H., and Benjamin F. Stewart, Santa Fé, Mo. Horse-power	Dec. 12, 1871
	Marmon, Daniel W., and Addison H. Nordyke. (See Nordyke & Marmon.) (Two cases.)	
115,075	Marquard, Frank, Newburyport, Mass. Composition boot and shoe heel, sole, &c	May 23, 1871
	Marquett, S. M. (See Garner, Samuel R., assignor.)	
120,655	Marquis, John, San Francisco, Cal. Pump	Nov. 7, 1871
115,076	Marr, William C., and Joseph S. Maughlin, Onawa City, Iowa. Washing-machine	May 23, 1871
118,543	Marr, William C., Joseph S. Maughlin, and George A. Davis, Onawa City, Iowa, Washing-machine	Aug. 29, 1871
118,953	Marriott, Ambrose, Saint Louis, Mo. Hot-water apparatus for heating buildings	Sept. 12, 1871
121,639	Same. Ventilator	Dec. 5, 1871
116,204	Marriott, Frederick, Detroit, Mich. Apparatus for sugar-coating pills	June 20, 1871
	Marriott, William, and John Sherman. (See Sherman & Marriott.)	
122,124	Marsden, Franklin P., Galena, Ill. Combination-lock	Dec. 26, 1871
116,613	Marsden, Robert, England. Pulley-block	July 4, 1871
119,871	Marsh, Christopher C., New York, N. Y. Balance	Oct. 10, 1871
120,300	Same. Wash-basin	Oct. 24, 1871
112,161	Marsh, Cyrus, 2d, Natchez, Miss. Corn and cotton scraper, &c	Feb. 23, 1871
113,320	Same. Cotton-scraper, hiller, and cultivator	April 4, 1871
114,578	Marsh, Eliezer J., Leominster, Mass. Knife and fork scourer	May 9, 1871
112,262	Marsh, Gideon, Steambury, N. Y. Bee-hive	Feb. 23, 1871
112,263	Marsh, James S., Lewisburgh, Pa. Harvester	Feb. 23, 1871
119,379	Marsh, Joseph B., Brooklyn, N. Y. Truss-pad	Sept. 26, 1871
	Marsh, Peletiah J. (See Hermance, Levi, assignor)	
	(Two cases.)	
112,611	Marsh, Stewart C., Newark, N. J. Safety-valve	Mar. 14, 1871
118,622	Marsh, Thomas, North Providence, R. I. Supporter for spinning-rings	Aug. 29, 1871
118,544	Marsh, Thomas, assignor to self and Henry F. Jenks, North Providence, R. I. Holder for spinning-rings	Aug. 29, 1871
	Marsh, Thomas, and Henry F. Jenks. (See Jenks & Marsh.)	
111,758	Marsh, William, Waterford, Pa. Butter-tub, &c	Feb. 14, 1871
121,640	Marsh, William S., Raymond, Wis. Preserving eggs	Dec. 5, 1871
	Marsh, W. W. (See Whitney, John H., assignor.)	
	Marsh, William W., and John H. Whitney. (See Whitney & Marsh.)	
112,366	Marshall, Alexander J., Warrenton, Va. Propeller. (Antedated March 3, 1871.)	Mar. 7, 1871
	Marshall, Andrew H., and Horatio Cornell. (See Cornell & Marshall.)	
118,736	Marshall, Augustus F., Black River, N. Y. Machine for bending wood	Sept. 5, 1871
114,956	Marshall, Caleb, assignor to Marshall, Philips & Co., Philadelphia, Pa. Manufacture of sheet-iron, and removing scale from iron for coating with other metals	May 16, 1871
110,663	Marshall, Calvin, North Easton, Mass. Rut-leveler	Jan. 3, 1871
113,900	Marshall, Charles K., New Orleans, La. Cotton and hay press	April 18, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,901	Marshall, Charles K., New Orleans, La. Cotton press and tramper. (Ante-dated April 10, 1871).....	April 18, 1871
110,769	Marshall, Daniel M., Pawtucket, R. I. Ironing-table.....	Jan. 3, 1871
122,270	Marshall, George M., New Haven, Wis. Shears for cutting metal. (Ante-dated Dec. 23, 1871).....	Dec. 26, 1871
119,279	Marshall, James, New Orleans, La. Horse-power.....	Sept. 26, 1871
	Marshall, James. (See Rider, Leman P., assignor.).....	
117,185	Marshall, John, Brooklyn, N. Y. Cask or barrel.....	July 18, 1871
	Marshall, John, <i>et al.</i> (See St. John, Roswell H., assignor.).....	
	Marshall, John L., <i>et al.</i> (See Harwood, William P., assignor.).....	
111,955	Marshall, Joseph, Brooklyn, N. Y. Bathing-brush. (Ante-dated Feb. 17, 1871).....	Feb. 21, 1871
111,223	Marshall, Joseph T., Wilmington, Del. Grate-bar.....	Jan. 24, 1871
116,614	Marshall, Moses S., assignor to John T. and John S. Folsom, Somerville, Mass. Washing-machine.....	July 4, 1871
119,779	Marshall, Robert, Hobart, N. Y. Sap-bucket cover.....	Oct. 10, 1871
112,943	Marshall, Thomas P., Trenton, N. J. Saw with detachable teeth.....	Mar. 21, 1871
114,169	Marston, Dudley Jefferson, Amesbury, Mass. Machinery for dressing wheel-felloes.....	April 25, 1871
114,579	Marston, Frank W., Philadelphia, Pa. Reversible hinge.....	May 9, 1871
121,641	Marston, Henry C., assignor to self and Franklin W. Brooks, New York, N. Y. Stair-rod.....	Dec. 5, 1871
	Marston, Thomas, jr., <i>et al.</i> (See Anderson, James K., assignor).... (Two cases.)	
	Marston, William G., and Thomas H. Chubb. (See Chubb & Marston.).....	
115,623	Martienssen, George, Brooklyn, N. Y. Children's carriage.....	June 6, 1871
111,759	Martin, Alexander, Allegheny City, Pa. Bakers' oven.....	Feb. 14, 1871
	Martin, A. C., and M. M. Wombagh, deceased, by William H. S. Ewell, administrator, Cincinnati, Ohio. Method of governing the cut of circular sawing-machinery..... (Extension).....	Dec. 6, 1871
119,165	Martin, Benjamin H., assignor to self and Oliver M. Martin, Ann Arbor, Mich. Provision and milk safe.....	Sept. 19, 1871
	Martin, Charles A. (See Keller, Peter, assignor.).....	
121,795	Martin, Charlie H., Chapinsville, N. Y. Fruit-drier.....	Dec. 12, 1871
	Martin, Cyrus B. (See Guernsey, William B., assignor)..... (Reissue.)	
121,292	Martin, Daniel D., Cincinnati, Ohio. Coffee-roaster.....	Nov. 28, 1871
116,334	Martin, David N., assignor to D. N. and C. M. Martin, Lawrence, Mass. Stove-door.....	June 27, 1871
111,856	Martin, Edwin, assignor to self, Samuel W. Porter, and James F. Cranston, Springfield, Mass. Metallic cartridge.....	Feb. 14, 1871
	Martin, Francis J. (See Auchey, Ephraim D., assignor.).....	
119,628	Martin, George W., William G. Parrish, and James A. Petrie, Elizabeth, N. J. Ground marker and furrower.....	Oct. 3, 1871
112,612	Martin, Henry, Louisville, Ky. Machine for cutting screw-threads on bolts.....	Mar. 14, 1871
113,072	Same..... Machine for threading bolts.....	Mar. 28, 1871
113,540	Martin, Henry, Brooklyn, N. Y. Brick and other mold.....	April 11, 1871
115,492	Martin, Henry R., Hillsborough, N. H. Head-block.....	May 30, 1871
115,878	Martin, Isaac, and Daniel B. Perrow, Lone Jack, Mo. Slide-valve.....	June 13, 1871
	Martin, Jacob, <i>et al.</i> (See Coulon, Frederick, assignor.).....	
	Martin, John, and Daniel Hayes. (See Hayes & Martin.).....	
114,580	Martin, John F., Harrisburgh, Oreg. Buckle.....	May 9, 1871
112,061	Martin, John H., Columbus, Ohio. Harness saddle-tree.....	Feb. 21, 1871
113,541	Same..... same.....	April 11, 1871
113,902	Same..... Buckle.....	April 18, 1871
117,309	Same..... Harness saddle-tree.....	July 25, 1871
118,033	Martin, John W., Saint Joseph, Mo. Electro-magnetic fire-alarm telegraph.....	Aug. 15, 1871
122,125	Martin, Mark, Rockford, Ill. Gate.....	Dec. 26, 1871
117,553	Martin, Mark M., Cochran, Ind. Railway-car seat.....	Aug. 1, 1871
116,205	Martin, Michael, New York, N. Y. Velocipede.....	June 20, 1871
114,581	Martin, Milo, assignor to self and Jasper Stowe, Charlotte, N. C. Machine for adjusting cotton-bale ties.....	May 9, 1871
110,664	Martin, Peter, Cincinnati, Ohio. Hot-air furnace.....	Jan. 3, 1871
114,697	Martin, Robert Y., assignor to Eli P. Cooley, New York, N. Y. Whisk-broom.....	May 9, 1871
119,629	Martin, William, Oxford, Iowa. Washing-machine.....	Oct. 3, 1871
122,271	Martin, William L., Rienzi, Miss. Railway-switch.....	Dec. 26, 1871
113,903	Martin, William Nelson, Boston, Mass. Hemming and tucking attachment for sewing-machines.....	April 18, 1871
4,376	Same..... Binder for sewing-machines..... (Reissue).....	May 9, 1871
	Martin, William P., and Urban R. Williams. (See Williams & Martin.).....	
113,542	Martine, Charles F., Boston, Mass. Needle setter and threader.....	April 11, 1871
4,818	Martins, John, and John Currie, assignors to Orr, Painter & Co., Philadelphia, Pa. Parlor-stove..... (Design).....	April 18, 1871
	Martratt, Cornelius, Waterford, N. Y. Method of securing the doors of hay-presses, &c..... (Extension).....	April 19, 1871
111,660	Martz, Nicholas, Lykens, Pa. Scaffold.....	Feb. 7, 1871
114,456	Marvil, Joshua H., Laurel, Del. Fruit and berry box or basket.....	May 2, 1871
119,872	Same..... Fruit-box.....	Oct. 10, 1871
118,545	Marvin, John, and William T. Hulse, Port Jefferson, N. Y. Bung-spout.....	Aug. 29, 1871
	Marvin, Tasker H. (See Clay, Robert J., assignor.).....	
116,073	Maschmann, Conrad, Watertown, N. Y. Baby-walker.....	June 20, 1871
118,034	Masek, Wenzel, Nashville, Tenn. Apparatus for tanning in vacuo.....	Aug. 15, 1871
	Maseth, Joseph. (See Smith, James W., assignor.).....	
	Same..... (See Nelson, Franklin, assignor.).....	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Mason & Hamlin Organ Company. (<i>See</i> Hamlin, Emmons, assignor.) (Two cases.)	
118,954	Mason, Alfred W. J., New Orleans, La. Grain-drier	Sept. 12, 1871
120,447	Same.....Drier	Oct. 31, 1871
115,224	Mason, Arnold P., assignor to William H. Bard, Franklinville, N. Y. Check-rein swivel	May 23, 1871
115,753	Mason, Arnold P., assignor of one-half interest to William H. Bard, Franklinville, N. Y. Slide-bar for bridle-bits	June 6, 1871
116,465	Same.....Collar-cap for harness.....	June 27, 1871
112,944	Mason, Benjamin A., assignor to Thomas L. Carpenter, New York, N. Y. Apparatus for manufacturing wire	Mar. 21, 1871
	Mason, George J., and James A. Rose. (<i>See</i> Rose & Mason.)	
112,523	Mason, James M., Washington, D. C. Breech-loading fire-arm.....	Mar. 7, 1871
117,906	Same.....same.....	Aug. 8, 1871
112,729	Mason, James M., assignor to Alexander & Mason, Washington, D. C. Dress-sword.....	Mar. 14, 1871
120,301	Mason, John, Buffalo, N. Y. Sliding-gauge.....	Oct. 24, 1871
115,972	Mason, John J., Girdletree, Md. Mode of reefing sails.....	June 13, 1871
115,754	Mason, John L., New York, N. Y. Screw-cap and ring for fruit-jars	June 6, 1871
116,206	Mason, Joseph H., New Haven, Conn. Die for forging carriage-spring heads.....	June 20, 1871
120,050	Mason, Matthew B., and John S. McCrum, Kansas City, Mo. Cylinder-cock.....	Oct. 17, 1871
111,554	Mason, Nicholas, Lincoln, Mass. Spring-bed	Feb. 7, 1871
117,093	Mason, Ralph and Sidney, Burgh Hill, Ohio. Curd-strainer	July 18, 1871
112,474	Mason, Richard, assignor to self and Matthew Ely, Newark, N. J. Back-reflecting mirror	Mar. 7, 1871
114,835	Mason, Sylvester G., Rochester, N. Y. Scroll-sawing machine	May 16, 1871
112,613	Mason, William, Providence, R. I. Mode of making wells.....	Mar. 14, 1871
118,035	Massey, Gideon B., New York, N. Y. Vegetable-cutter. (Antedated Aug. 3, 1871)	Aug. 15, 1871
118,737	Massey, Gideon B., assignor to Massey Low-Water Detector Company, New York, N. Y. Low-water detector.....	Sept. 5, 1871
116,615	Massey, Orren Webb, Macon, Ga. Cotton-gin.....	July 4, 1871
111,760	Massey, Pleasant H., South Bend, Ind. Mill-stone feeder and grain-scourer.....	Feb. 14, 1871
117,792	Massie, Thomas A., Plattsburgh, Mo. Washing-machine.....	Aug. 8, 1871
120,388	Massie, Thomas James, Arrington, Va. Gun-lock	Oct. 31, 1871
	Massing, Charles Louis, <i>et al.</i> (<i>See</i> Altenburg & Lamboix, assignors.)	
	Mast, Phineas P. (<i>See</i> Thomas, John H., assignor.)	
	Mast, Phineas P., and John H. Thomas. (<i>See</i> Thomas & Mast.)	
119,630	Masten, Cornelius E., Boston, Mass. Rocket	Oct. 3, 1871
120,051	Masters, Samuel O., Corning, N. Y. Seeding-machine.....	Oct. 17, 1871
111,956	Masury, John W., Brooklyn, N. Y. Millstone.....	Feb. 21, 1871
117,793	Mater, Daniel, jr., assignor to self and Ira Mater, Bellmore, Ind. Horseshoe-nail clincher.....	Aug. 8, 1871
120,758	Mater, Daniel, jr., Bellmore, Ind. Wagon.....	Nov. 7, 1871
111,957	Matheis, John, Ottawa, Ill. Leather-punching machine	Feb. 21, 1871
	Matheney, Elijah C. (<i>See</i> Schroyer, Joseph J., assignor.)	
114,317	Mather, Cotton, Stenbenville, Ohio. Lubricator	May 2, 1871
118,807	Mather, Emmett, assignor to Frank Sturges & Co., Chicago, Ill. Coal-scuttle.....	Sept. 12, 1871
118,867	Mather, Henry W., New York, N. Y. Liquid-meter.....	Sept. 12, 1871
118,254	Mather, Samuel, New Braunfels, Tex. Cotton-tie stretchers.....	Aug. 22, 1871
	Mathes, J. W., <i>et al.</i> (<i>See</i> Jordan, James C., assignor.)	
121,057	Matheson, George, assignor to the National Tube Works Company, Boston, Mass. Machine for bending tube-skelps.....	Nov. 21, 1871
	Mathews, Daniel A., <i>et al.</i> (<i>See</i> Lynch, Charles, assignor.)	
114,022	Mathews, Ebenezer, Harrisville, W. Va. Paddle-wheel	April 25, 1871
	Mathews, Holoway, and John T. Hudnet. (<i>See</i> Hudnet & Mathews.)	
115,755	Mathews, Rodney H., Nebraska City, Nebr. Corn and seed planter	June 6, 1871
	Mathews, S. R. C., and Washburn Race. (<i>See</i> Race & Mathews.) (Reissue.)	
	Mathiesen, Carl A., and John C. Schrader. (<i>See</i> Schrader & Mathiesen.)	
120,204	Mathison, James, Fremont, Nebr. Harrow.....	Oct. 24, 1871
118,036	Mathivet, Jean Victor, Cleveland, Ohio. Machine for bottling liquids.....	Aug. 15, 1871
113,073	Mathushek, Frederick, New York, N. Y. Piano	Mar. 25, 1871
113,074	Same.....Piano-forte action	Mar. 28, 1871
114,582	Matier, Henry, Belfast, Ireland. Paper-box	May 9, 1871
115,077	Matt, Lorenzo, and Bernard Grueter, Boston, Mass. Piano-action	May 23, 1871
121,952	Matt, Lorenzo, Boston, Mass. Piano-forte action	Dec. 19, 1871
118,376	Mattern, Frederick W., Chicago, Ill. Device for extracting pens from holders.....	Aug. 22, 1871
121,293	Matteson, Sarah O., Chicago, Ill. Attachment for sewing-machines	Nov. 28, 1871
118,738	Matthews, Colin P., England. Composition for coating ale-casks, &c	Sept. 23, 1871
114,170	Matthews, Elbridge G., Oakham, Mass. Machine for forming plow-handles.....	April 25, 1871
114,171	Same.....Wood-bending machine	April 25, 1871
	Matthews, Elbridge G., <i>et al.</i> (<i>See</i> Small, Matthews & Holbrook.)	
114,172	Matthews, Frederick E., Chicago, Ill. Composition for pavements	April 25, 1871
111,131	Matthews, James D., Niles, Mich. Sawing-machine	Jan. 24, 1871
121,116	Matthews, Jeremiah, Lincoln, Ill. Corn-planter	Nov. 21, 1871
	Matthews, John, firm of. (<i>See</i> Taylor, Esan D., assignor.)	
118,037	Matthews, John, jr., New York, N. Y. Refrigerator	Aug. 15, 1871
	Matthews, Marcellus S. (<i>See</i> Bassett, John T., assignor.)	
	Matthews, Solomon. (<i>See</i> Miles, Charles M., assignor.)	
	Matthews, William F. (<i>See</i> Doe, Horatio W., assignor.)	
	Matthews, William N., and Samuel B. Hindman. (<i>See</i> Hindman & Matthews.) (Design.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
117,554	Matthias, Joseph, New York, N. Y. Washing-machine	Aug. 8, 1871
120,525	Mattison, Horatio N., New York, N. Y. Syringe	Oct. 31, 1871
4,282	Mattock, John H., and John E. Fell. (<i>See Fell & Mattock.</i>)	
	Mattson, Morris, New York, N. Y. Breast-pump	(Reissue) Feb. 28, 1871
	Manger, Marie A. (<i>See Dick, Dundas, assignor</i>)	(Design)
	Same	same.
116,616	Manger, Victor E., New York, N. Y. Gripper for cylinder printing-presses	July 4, 1871
121,117	Same	Machine for cutting and assorting playing-cards, &c. Nov. 21, 1871
	Same	(<i>See Plunket, Thomas J., assignor.</i>)
	Same	(<i>See Von Briesen, Arthur, assignor.</i>)
	Maughlin, Joseph S., and William C. Marr. (<i>See Marr & Maughlin.</i>)	
	Maughlin, Joseph S., <i>et al.</i> (<i>See Marr, Maughlin & Davis.</i>)	
118,142	Mandin, Ransom, Marietta, Miss. Cotton-press	Aug. 15, 1871
	Maurer, George H., and Thomas S. Baylie. (<i>See Baylie & Maurer.</i>)	
116,335	Maurice, Charles G., New York, N. Y. Lithographic press	June 27, 1871
118,623	Maxcy, John C., and Thomas Lewis, Springfield, Ill. Sad-iron	Aug. 29, 1871
119,631	Maxfield, Charles A., New York, N. Y. Paper-box machine	Oct. 3, 1871
122,272	Maxim, Hiram S., Brooklyn, N. Y. Steam-trap	Dec. 26, 1871
120,302	Maxim, Hiram S., assignor to Myron H. Strong, Brooklyn, N. Y. Gas-machine	Oct. 24, 1871
118,955	Maxon, Thomas, Springfield, Ohio. Lifting-jack	Sept. 12, 1871
111,362	Maxson, Erwin W., Scranton, Pa. Spring bed-bottom	Jan. 31, 1871
111,958	Same	Washing-machine. Feb. 21, 1871
111,857	Maxton, John, Seybrook, Ill. Combined cultivator and harrow	Feb. 14, 1871
111,363	Maxwell, Alonzo S., Dixon, Ill. Cover for bins	Jan. 31, 1871
114,583	Maxwell, James M., Webster, W. Va. Railway-switch	May 9, 1871
5,324	Maxwell, James R., Cincinnati, Ohio, and Ezra Cope, Covington, Ky. Steam-engine cylinder and frame	(Design) Oct. 24, 1871
117,186	Maxwell, John, and Thomas Gray, Philadelphia, Pa. Ladder	July 18, 1871
114,584	May, Edwin, Indianapolis, Ind. Prison-grating	May 9, 1871
116,074	May, George W., assignor to self and Daniel L. Thompson, Baldwinsville, Mass. Saw-set. (<i>Antedated June 8, 1871</i>)	June 20, 1871
112,945	May, Gordon A., Chicago, Ill. Wood-pavement	Mar. 21, 1871
115,493	May, William, Binghamton, N. Y. Machine for piercing side-seams of boots, &c.	May 30, 1871
116,466	May, William L., Philadelphia, Pa. Portable fare-box	June 27, 1871
111,465	Mayall, John C., Boston, Mass. Carpet-lining	Jan. 31, 1871
116,467	Same	Machine for folding carpet-linings. June 27, 1871
111,224	Mayben, John, Milroy, Pa. Car-coupling	Jan. 24, 1871
122,183	Mayer, John, Philadelphia, Pa. Detachable hair-curl, and apparatus for manufacturing the same	Dec. 26, 1871
121,642	Mayer, William H., Newark, N. J. Apparatus for fitting and laying out garments	Dec. 5, 1871
116,974	Mayfield, Isaac, Mayfield, Ky. Plant-protector	July 11, 1871
119,380	Same	Water-elevator. Sept. 26, 1871
110,927	Mayfield, Isaac and William D., Mayfield, Ky. Grinding-mill	Jan. 10, 1871
110,928	Mayher, John, East Hampton, Mass. Regulating the discharge of water from pumps	Jan. 10, 1871
113,681	Mayhew, Lorenzo, Greenfield, N. Y. Axle-skein	April 11, 1871
118,377	Same	same. Aug. 22, 1871
120,303	Same	Rock City Falls, N. Y. Axle-skein. Oct. 24, 1871
115,624	Mayhew, Oscar F., assignor to self and William H. Weeks, Indianapolis, Ind. Vegetable and fruit peeler	June 6, 1871
	Mayhew, William B., and William C. Adams. (<i>See Adams & Mayhew.</i>)	
112,824	Maynard, James A., Newtonville, Mass. Boiler for heating purposes	Mar. 21, 1871
119,038	Same	Sectional tubular steam-boiler. Sept. 19, 1871
118,956	Maynard, William, Salem, Mass. Apparatus for the manufacture of extracts from hemlock and other barks	Sept. 12, 1871
122,043	Maynard, William C., Marathon, N. Y. Clothes-drier	Dec. 19, 1871
	Mayo, Israel C. (<i>See Plouff, John W., assignor.</i>)	
	Mayo, Uriel K. (<i>See Brockway, Josephus, assignor</i>)	(Two cases.)
112,264	McAdams, John, Brooklyn, N. Y. Paper-folding machine	Feb. 28, 1871
119,381	McAdams, William, Newton, Mass. Calendar	Sept. 26, 1871
122,184	McAllister, Edward, Rochester, N. Y. Kneading-machine	Dec. 26, 1871
115,494	McAllister, Harry W., Chicago, Ill. Electric advertising-cabinet	May 30, 1871
116,336	McAlonan, James, New York, N. Y. Piston-packing	June 27, 1871
	McAndrews, John. (<i>See Aab, George, assignor.</i>)	
111,466	McAulity, John Armstrong, Gilpin, Pa. Bee-hive	Jan. 31, 1871
113,321	McArthur, Alexander, Boonville, Mo. Harvester-rake	April 4, 1871
111,364	McArthur, William, Philadelphia, Pa. Bedstead and spring bed-bottom	Jan. 31, 1871
111,365	Same	Combined rocking-sofa and bedstead. Jan. 31, 1871
	McAuliffe, John, and Edward Hewitt. (<i>See Hewitt & McAuliffe.</i>)	
119,632	McBeth, Charles, Hamilton, Ohio. Cutter-head	Oct. 3, 1871
	McBeth, Charles E., and Henry Climer. (<i>See Climer & McBeth.</i>)	
5,048	McBeth, Charles E., Frederick Beutel, and William C. Margedant, Hamilton, Ohio. Boring-machine	(Design) June 27, 1871
120,448	McBeth, Charles E., Frederick Bentel, and William C. Margedant, Hamilton, Ohio, and Henry Climer, Muscatine, Iowa. Planing-machine	Oct. 31, 1871
121,183	McBride, Alexander, Lowell, Mich. Arch for lime-kilns	Nov. 21, 1871
111,555	McBride, James, Ithaca, N. Y. Churn	Feb. 7, 1871
115,879	McBride, Peter, New York, N. Y. Refrigerator	June 13, 1871
120,304	McBride, Thomas D., Philadelphia, Pa. Wrench	Oct. 24, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,880	McBurney, Charles, Boston, Mass. Finishing vulcanized India-rubber belting.	June 13, 1871
4,662	Same. Finishing vulcanized rubber-belting (Reissue).	Dec. 5, 1871
118,624	McBurney, Charles, and Lyman Hollingsworth, assignors to Charles McBurney, Boston, Mass. Paper-machine deckel.	Aug. 29, 1871
112,946	McCahey, John, and Stephen B. Salisbury, assignors to the New England Butt Company, Providence, R. I. Braiding-machine.	Mar. 21, 1871
114,173	McCaleb, Samuel D. and William, Louisville, Ky. Dumping-wagon.	April 25, 1871
122,205	McCall, Edwin Robert, Simcoe, Canada. Harvester-cutter grinder.	Oct. 24, 1871
	McCallen, Francis A., and Gustavus A. Brown. (See Brown & McCallen.)	
4,738	McCallum, Archibald, assignor to W. & I. Sloane, England. Carpet-pattern. (Design).	Mar. 28, 1871
4,739	Same. Carpet-pattern (Design).	Mar. 28, 1871
4,740	Same. same (Design).	Mar. 28, 1871
4,980	Same. same (Design).	June 6, 1871
4,905	McCallum, Archibald, assignor to Joseph Wild, England. Carpet-pattern. (Design).	May 16, 1871
5,417	McCallum, Archibald, assignor to Joseph Wild & Co., England. Carpet-pattern. (Design).	Dec. 12, 1871
5,418	Same. Carpet-pattern (Design).	Dec. 12, 1871
5,419	Same. same (Design).	Dec. 12, 1871
5,420	Same. same (Design).	Dec. 12, 1871
5,421	Same. same (Design).	Dec. 12, 1871
5,422	Same. same (Design).	Dec. 12, 1871
	McCallum, Crease & Sloan. (See Heald, Alfred, assignor.) (Nine cases.) (Design.)	
111,325	McCallum, James, assignor of one-third interest to Henry E. Gillam, Rochester, N. Y. Stove-pipe shelf.	Jan. 24, 1871
120,206	McCallum, John, and Jacob Hartzell, Alliance, Ohio. Fire-lighter.	Oct. 24, 1871
5,278	McCallum, William, assignor to Joseph Wild & Co., England. Carpet-pattern. (Design).	Sept. 26, 1871
5,279	Same. Carpet-pattern (Design).	Sept. 26, 1871
	McCambridge, Andrew. (See Gordon, William, assignor.)	
114,836	McCammon, George W., Manheim, N. Y., and David H. Burrell, Little Falls, N. Y.; said McCammon assignor to Rodney S. Whitman. Dairy-heater for heating water.	May 16, 1871
116,617	McCamy, James H., Wytheville, Va. Mechanical movement.	July 4, 1871
117,653	McCandless, James, New York, N. Y. Market-stall, &c.	Aug. 1, 1871
112,825	McCann, John, Albany, N. Y. Hydrant. (Antedated March 2, 1871).	Mar. 21, 1871
118,469	McCann, Robert H., Zanesville, Ohio. Stud for suspending driving-wheels for sewing-machines. (Antedated Aug. 24, 1871).	Aug. 29, 1871
120,888	McCarroll, Herschel P., Pittsburgh, Pa. Piston-packing.	Nov. 14, 1871
118,340	McCarroll, Samuel, Norristown, Pa. Cut-off valve for steam-engines.	Aug. 22, 1871
113,185	McCarthy, James M., Canal Dover, Ohio. Brick-kiln.	Mar. 28, 1871
115,756	McCarthy, Joseph, Woburn, Mass. Tension-roller for sewing-machines.	June 6, 1871
	McCartney, John. (See Penny, Charles E., assignor.)	
118,038	McCarver, Thomas J., Oregon City, Oreg. Sash-holder.	Aug. 15, 1871
	McCauley, James, and Samuel C. Myers. (See Myers & McCauley.) (Two cases.)	
116,849	McCauley, Reuben A., Baltimore, Md. Household implement.	July 11, 1871
111,858	McCausland, John, Alexander, and William J. A., Providence, R. I. Book-support.	Feb. 14, 1871
121,643	McClain, George M., Rockport, Mass. Traveler for vessels.	Dec. 5, 1871
114,457	McClary, David, Allegheny City, Pa. Wash-boiler.	May 2, 1871
118,868	McClelland, James, Geneva, N. Y. Hub-clamp.	Sept. 12, 1871
115,495	McClelland, John, Washington, D. C. Fire-plug.	May 30, 1871
4,322	McClelland, Robert W., Springfield, Ill. Carriage-wheel. (Reissue).	April 4, 1871
115,078	Same. Whiffletree.	May 23, 1871
113,682	McClelland, Robert W., assignor to self and John McCreery, Springfield, Ill. Wheel for vehicles.	April 11, 1871
114,458	Same. same.	May 2, 1871
115,225	McClintock, James R., and John Cumberland, deceased, by James R. McClintock, legal representative; assigned to James R. McClintock, New Orleans, La. Cotton-bale tie.	May 23, 1871
112,265	McClinton, James B. and William, Galion, Ohio. Feed-cutter.	Feb. 28, 1871
112,266	McClure, Charles W., and William A. Shepard, Wooster, Ohio. Tea-kettle.	Feb. 28, 1871
116,732	McClure, Jacob, Nashua, N. H. Combined knife and pencil-sharpener.	July 4, 1871
115,496	McClure, Jacob W., Saint Louis, Mo. Churn-dasher.	May 30, 1871
119,382	McClure, William B., Alexandria, Va. Cart-saddle.	Sept. 26, 1871
121,644	Same. Stirrup for cart and dray shafts.	Dec. 5, 1871
121,164	McClure, William B., assignor of two-thirds interest to John C. Graham and H. O. Claghton, Alexandria, Va. Traveler for cart and dray shafts.	Nov. 21, 1871
4,679	Same. Back-chain for cart-saddles (Reissue).	Dec. 19, 1871
117,167	McCollam, Andrew, New Orleans, La. Plow-clevis.	July 18, 1871
	McCollum, Richard P., and William H. Carman. (See Carman & McCollum.)	
118,957	McComas, De Loss, Calhoun, Mo. Car-coupling.	Sept. 12, 1871
	McComb, Marshall, and Arthur W. Bush. (See Bush & McComb.)	
117,340	McConn, John, Philadelphia, Pa. Steam-heater.	July 25, 1871
117,311	Same. Sectional steam-boiler.	July 25, 1871
	McConnell, Andrew, and Edward Watkins. (See Watkins & McConnell.)	
114,174	McConnell, David W., and William W. Pierce, Buffalo, N. Y. Apparatus for making roofing-fabrics.	April 25, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,075	McConnell, Edgar, Sharon, Pa. Chisel for mortising-machines.....	Mar. 28, 1871
111,661	McConnell, James H., Springfield, Ill. Manufacture of paper, cordage, twine, &c. Same.....(See Draper, Henry V. P., assignor.)	Feb. 7, 1871
111,226	McConnell, John R., Marengo, Iowa. Gang-plow. (Antedated Jan. 18, 1871)....	Jan. 24, 1871
113,904	McConnell, William, Philadelphia, Pa. Shade-cord retainer	April 18, 1871
114,175	McConnell, William P., Washington, D. C. Extracting metal from ores.....	April 25, 1871
	McCord & Wheatley (See Donnellan, Charles E., assignor.)	
	McCorl, George. (See Benson, John, assignor.)	
117,555	McCord, Samuel M., Springfield, Ohio. Chimney.....	Aug. 1, 1871
117,183	McCord, William, Sing Sing, N. Y. Washing-machine. (Antedated July 13, 1871).....	July 18, 1871
	McCormick, C. H., & Brother. (See Johnson, William Nevins, assignor.)	
119,712	McCormick, Leander J., and William R. Baker, assignors to C. H. McCormick & Brother, Chicago, Ill. Harvester	Oct. 10, 1871
119,737	Same	Oct. 17, 1871
119,741	McCormick, William H., assignor to self and John T. Williams, Muncie, Ind. Weighing attachment to wagons	April 11, 1871
115,079	McCoy, John, assignor of one-half interest to Samuel Traquar Tyson, Philadelphia, Pa. Heating-stove	May 23, 1871
118,039	McCoy, William P., assignor to Miller's Falls Manufacturing Company, Erving, Mass. But stock	Aug. 15, 1871
114,318	McCracken, Asa South Byron, N. Y. Harness	May 2, 1871
120,082	McCracken, Edwin D., assignor to Lucius A. Bigelow, trustee, New York, N. Y. Means for lighting gas	Oct. 17, 1871
120,083	Same	Oct. 17, 1871
113,757	McCrory, William H., Kingston, Ga. Fire-kindler	June 6, 1871
	McCree, James A. and Augustus L. <i>et al.</i> (See Rowland, Charles, assignor.)	
	McCree, William, <i>et al.</i> (See Rawson, Ovender, Wyld, McCree & Hill.)	
115,497	McCreery, John, Springfield, Ill. Carriage-wheel	May 10, 1871
	Same.....(See McClelland, Robert W., assignor)	(Two cases.)
	McCrum, John S., and Matthew B. Mason. (See Mason & McCrum.)	
	McCuaig, Robert Charles Wilkins. (See Grant, James A., assignor.)	
121,796	McCullen, George D., New Orleans, La. Portable fire-escape	Dec. 12, 1871
116,618	McDonald, Ephraim, Boston, Mass., and Nathan H. Cole, Swampscott, Mass. Clutch for feeding-mechanism for sewing-machines.....	July 4, 1871
4,548	McDonald, Henry H., and Zenas B. Putnam. (See Putnam & McDonald.)	
120,305	McDonald, Hiram, Shortsville, N. Y. Wood-bending machine	Sept. 12, 1871
120,306	Same	Oct. 24, 1871
4,614	Same	Oct. 24, 1871
	Same	Oct. 31, 1871
	McDonald, Isaac C. and James Hoagland. (See Hoagland & McDonald.)	
	McDonald, James M., and Ernest Von Jeinsen. (See Von Jeinsen & McDonald.) (Two cases.)	
121,645	McDonald, John, Kankakee, Ill. Compound for hardening iron and steel	Dec. 5, 1871
113,544	McDonald, Thomas E., Trenton, N. J. Spindle for wringer-rolls	April 11, 1871
119,245	Same	Sept. 26, 1871
120,207	Same	Oct. 24, 1871
4,261	McDonough, James W., Chicago, Ill. Folding-lounge	Feb. 14, 1871
116,850	Same	July 11, 1871
112,614	McDougall, Samuel T., Brooklyn, N. Y. Combined clothes-receptacle, ironing-board, and drier	Mar. 14, 1871
111,959	McDowell, John, Washington, Pa. Burglar-alarm	Feb. 21, 1871
114,837	McDowell, William L., Philadelphia, Pa. Fire-box for heating stoves	May 16, 1871
114,838	Same	May 16, 1871
121,185	Same	Nov. 21, 1871
112,367	McDuff, Edward, and Emory D. Forrow, Warwick, R. I. Oiler.....	Mar. 7, 1871
120,656	McElechran, William Henry, Hamilton, Canada. Ornamenting and lettering hard and uneven surfaces	Nov. 7, 1871
115,881	McElrath, Robert B., Newburgh, N. Y. Combined crank, ratchet, and brake.....	June 13, 1871
120,526	McEuen, George W., and Chandler Eves, Millville, Pa. Railway-car coupling.....	Oct. 31, 1871
117,654	McFall, Andrew, Yoakems, N. Y. Book-holder and leaf-turner.....	Aug. 1, 1871
119,021	McFall, Sylvester, Blandinsville, Ill. Weather-strip for doors	June 6, 1871
115,758	McFarland, Thomas A., Erie, Pa. Wagon-spring	June 6, 1871
117,440	Same	July 25, 1871
	McGarvey, Michael. (See Van Wormer, Jasper, assignor.)	
	McGarvey, Michael, and Jasper Van Wormer. (See Vedder & Heister, assignors.) (Design.)	
120,657	McGavran, William H., Connotton, Ohio. Burial-apparatus.....	Nov. 7, 1871
117,189	McGee, Joseph, Lancaster, N. H. Neck-tie retainer.....	July 18, 1871
5,046	McGill, George W., New York, N. Y. Card-suspension clip	June 20, 1871
111,950	McGill, William C., Cincinnati, Ohio. Lamp-burner	Feb. 21, 1871
116,439	McGill, William C., assignor to A. J. Woodworth, Cincinnati, Ohio. Hasp-lock.....	June 27, 1871
116,337	McGlashan, John W., Montreal, Canada. Hot-air register	June 27, 1871
117,110	Same	July 18, 1871
	McGonigal, Margaretta B. (See Fowler, Edgar M., assignor.)	
116,733	McGonnigal, Alexander B., Helena, Ark. Cotton-press	July 4, 1871
120,200	McGovern, Hugh D., Brooklyn, N. Y. Sun-shield for horses	Oct. 21, 1871
118,700	McGovern, Peter, Lawrence, Mass. Self-acting mule for spinning	Sept. 12, 1871
113,784	McGovern, Peter, assignor to George L. Davis, John A. Wiley, Joseph M. Stone, George G. Davis, Joseph H. Stone, and James H. Davis, Lawrence, Mass. Self-acting jack for spinning.....	April 18, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	McGowan Brothers Pump and Machine Company. (<i>See</i> Morton, John, assignor).....(Reissue.)	
112,475	McGowan, James, assignor to self and Daniel H. Waring, New York, N. Y. Ventilator and chimney-top	Mar. 7, 1871
117,655	McGowan, John, Lebanon Church, Pa. Steam and water jet rotary engine.....	Aug. 1, 1871
117,656	Same.....Mifflin Township, Pa. Rotary engine.....	Aug. 1, 1871
111,227	McGowan, John H., Cincinnati, Ohio. Pump	Jan. 24, 1871
5,049	Same.....Steam-p mp piston.....(Design).....	June 27, 1871
117,312	McGowan, John H., and David B. Caldwell, Cincinnati, Ohio. Steam-engine	Sept. 19, 1871
	McGowan, Theodore J., assignor to McGowan Brothers Pump and Machine Company, Cincinnati, Ohio. Crank-gearing.....	July 25, 1871
	McGowan, Thomson, and Hiram W. Fancett. (<i>See</i> Fancett & McGowan.)	
117,794	McGowen, Alexander, Houston, Tex. Cotton and hay press.....	Aug. 8, 1871
120,449	McGown, Samuel F., Rockville, Ind. Fly-trap.....	Oct. 31, 1871
121,646	McGrane, Thomas, New York, N. Y. Fastening for mail-bags.....	Dec. 5, 1871
117,907	McGrath, Patrick, Plattsburgh, N. Y. Gauge-cock	Aug. 8, 1871
114,698	McGrath, Robert, Philadelphia, Pa. Sad-iron.....	May 9, 1871
115,759	McGrath, Robert M., La Fayette, Ind. Dumping-apparatus	June 6, 1871
	McGraw, Henry, <i>et al.</i> (<i>See</i> Lynch, Charles, assignor.)	
113,785	McGregor, Frazee B., assignor to self and George A. Hoyt, Pontiac, Mich. Piano-forte action	April 18, 1871
	McGrew, Findley. (<i>See</i> Porroy, Douglas F., assignor.)	
119,526	McHardy, Robert, assignor of one-half interest to John Coatsworth, Scotland. Mode of harnessing horses to shafts of vehicles	Oct. 3, 1871
118,255	McHenry, George S., Kansas City, Mo. Street-carriage.....	Aug. 22, 1871
117,313	McIlvaie, Charles, Philadelphia, Pa. Printers' ink	July 25, 1871
117,314	Same.....Copying-ink for ruling and printing. (Antedated July 12, 1871.)	July 25, 1871
110,929	McIlwain, Henry C., and Alonzo Brumfiel, Connersville, Ind. Rotary blower.....	Jan. 10, 1871
112,368	McInnes, John, Oxford, Pa. Wash-boiler.....	Mar. 7, 1871
	McIntire, Dougle. (<i>See</i> Walton, Lucius A., assignor.)	
121,725	McIntire, Joseph H., Crestline, Ohio. Link	Dec. 12, 1871
118,625	McIntire, William C., Washington, D. C. Hair-blowing attachment for shears..	Aug. 29, 1871
	McIntosh, Elmer D., and Franklin D. Ford. (<i>See</i> Ford & McIntosh.)	
	McIntosh, George W. and Herman Camp. (<i>See</i> Camp & McIntosh.)	
118,378	McIntosh, Lyman D., Waseca, Minn. Uterine-supporter	Aug. 22, 1871
	McKay Heeling Machine Association. (<i>See</i> Glidden, Charles W., assignor.)	
111,662	McKay, John A., Fort Wayne, Ind. Truss-bridge	Feb. 7, 1871
118,958	McKay, John E., New York, N. Y. Variable cut-off gearing	Sept. 12, 1871
4,640	Same.....same.....(Reissue).....	Nov. 21, 1871
113,438	McKay, John R., Rockton, Ill. Apparatus for cooling milk	April 4, 1871
	McKay Sewing-Machine Association. (<i>See</i> Richardson, Everett P., assignor.)	
	McKee, J. F., <i>et al.</i> (<i>See</i> Morgan, Edward, assignor.)	
122,044	McKee, James W., Brooklyn, E. D., N. Y. Implement for embossing fabrics	Dec. 19, 1871
119,468	McKee, John, New Orleans, La. Medical compound or corn-salve.....	Oct. 3, 1871
	McKee, William, <i>et al.</i> (<i>See</i> Beatty, James H., assignor.)	
	McKee, William, and William H. Doane. (<i>See</i> Doane & McKee.)	
112,730	McKeenhan, Benjamin F., Clarksburgh, W. Va. Pumps	Mar. 14, 1871
112,534	McKelfresh, Nathan, Elizabeth, Ind. Medical compound for cure of cancer.....	Dec. 5, 1871
116,975	McKenney, Almeron, Maumee City, Ohio. Railroad-rail.....	July 11, 1871
117,637	Same.....Device for locking bolts.....	Aug. 1, 1871
117,658	Same.....Railway-rail	Aug. 1, 1871
118,256	Same.....Device for locking nuts	Aug. 22, 1871
119,166	McKenzie, Alexander, England. Carriage-top	Sept. 19, 1871
115,626	McKenzie, Duncan, Brooklyn, N. Y. Oven	June 6, 1871
113,905	McKenzie, George, Scotland. Combining carbonaceous matter for the manufacture of gas	April 18, 1871
121,118	McKenzie, James, and J. Monroe Stebbins, Philadelphia, Pa. Cement, and in apparatus for preparing and using the same.....	Nov. 21, 1871
112,267	McKesson, John M., Lincoln, Nebr. Combined harvester and binder	Feb. 23, 1871
120,159	McKibbin, William, San Francisco, Cal. Wheelbarrow.....	Oct. 24, 1871
116,976	McKin, James T., Remington, Ind. Composition for preserving eggs	July 11, 1871
111,761	McKinley, Jerome B., Spencer County, Ky. Steam land-carriage	Feb. 14, 1871
119,040	McKenney, Martin V., assignor of one-half interest to Henry U. Frankel, Louisville, Ky. Machine for making cigars	Sept. 19, 1871
117,659	McKnight, John J., Tarrytown, N. Y. Extension-table	Aug. 1, 1871
113,546	McLaughlin, Daniel, Baltimore, Md. Machine for trimming boots and shoes.....	April 11, 1871
	McLaughlin, Henry. (<i>See</i> Power, Martin, assignor.)	
	McLean, James P., and Edward B. Phelps. (<i>See</i> Phelps & McLean.)	
5,342	McLeester, Alexander, assignor to Collins & McLeester, Philadelphia, Pa. Type	Oct. 31, 1871
	McLeod, Charles A., <i>et al.</i> (<i>See</i> Staats, William H., assignor.)	
	Same.....(<i>See</i> Geissenhainer, Charles P., assignor).....(Reissue.)	
113,906	McLewce, Frederick, New York, N. Y. Revolving gas-burner.....	April 18, 1871
119,383	McLoughlin, James J., Nashville, Tenn. Thread-cutter	Sept. 26, 1871
	McLure, John, and Joseph H. Connelly. (<i>See</i> Connelly & McLure.)	
117,795	McMahon, Charles E., assignor to Albert G. Crane, Elizabeth, N. J. Envelope. (Antedated July 23, 1871).....	Aug. 8, 1871
4,967	McMahon, John, assignor to self and Benjamin Scott, Wooster, Ohio. Claw-bar	May 30, 1871
116,207	McMaster, Alonzo D., assignor of one-half interest to John W. Stebbins, Rochester, N. Y. Coal-sifter.....	June 20, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
116,851	McMaster, Alonzo D., assignor to self and Orrin Morse, Rochester, N. Y. Hinge for gates, &c.	July 11, 1871
121,647	McMaster, Alonzo D., Rochester, N. Y. Bed-bottom.	Dec. 5, 1871
118,809	McMaster, Joseph M., Rochester, N. Y. Blacking-apparatus and boot-jack combined.	Sept. 12, 1871
120,823	Same..... Propulsion of canal-boats.	Nov. 14, 1871
121,393	McMaster, William J., Dixmont, Pa. Whiffletree-clip.	Nov. 28, 1871
115,226	McMeekin, Francis M., Morrison's Mills, Fla. Cotton-gin.	May 23, 1871
112,947	McMillan, Duncan, assignor to Abram Rowan, Webster City, Iowa. Buckle.	Mar. 21, 1871
	McMillen, John A., and Erasmus D. Gaines. (See Gaines & McMillen.)	
120,824	McMillen, William T., Richmond, Ind. Gas-machine.	Nov. 14, 1871
	McMillin, John S. (See Sullivan, Edward, assignor.)	
	McMullan, James H., and Eustis P. Morgan. (See Morgan & McMullan.)	
116,734	McMullen, Edgar, Montreal, Canada. Wood-pavement.	July 4, 1871
115,760	McMurray, Louis, and Robert J. Hollingsworth, Baltimore, Md. Soldering-tool.	June 6, 1871
	McNabb, John H. (See Wright, Abram and George F., assignors.)	
5,444	McNair, David, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet-pattern (Design).	Dec. 19, 1871
122,185	McNalley, Michael, Houston, Tex. Combined axle-box, sand-band, and casing for carriage-wheel hubs.	Dec. 26, 1871
120,658	McNally, Daniel, Mount Savage, Md. Manufacture of picks and rammers.	Nov. 7, 1871
115,080	McNamee, John T., assignor of one-half interest to Jacob L. Schoch, Baltimore, Md. Coffee-pot.	May 23, 1871
	McNary, George H., et al. (See Reese, Abram, assignor.)	
115,081	McNaught, Archibald, Alliance, Ohio. Thrashing-machine. (Antedated May 16, 1871).	May 23, 1871
111,663	McNaughton, William, assignor of one-half interest to John H. Trumbull, Chicago, Ill. Type-holder.	Feb. 7, 1871
	McNeill, Henry, and Stephen Williams. (See Williams & McNeill.) (Two cases.)	
122,273	McNeill, William H., West Orange, N. J. Deodorizing the gases from lard-boiling, &c.	Dec. 26, 1871
115,761	McNichol, John, Pontiac, Ill. Foot-measure for shoemakers.	June 6, 1871
115,337	McNiel, Eugene, Groton, N. Y. Centering-machine.	May 30, 1871
114,176	McPheeters, Archibald A. and Robert P., Arbor Hill, Va. Water-elevator.	April 25, 1871
117,714	McPheeters, Walter, and Charles Pearce, Harmony, Ind. Manufacture of coke.	Aug. 1, 1871
	McPherson, James B., and Orazio Lugo. (See Lugo & McPherson.)	
4,708	McPherson, William H., assignor to self and William N. Carr, sr., Nashville, Tenn. Fastening for bedsteads (Design).	Mar. 14, 1871
121,726	McPherson, William H., assignor to James E. Stacy and Merrill G. Phillips, Nashville, Tenn. Bedstead-fastening.	Dec. 12, 1871
116,075	McQuaid, Andrew C., assignor to Edward L. Mouser, Wenona, Ill. Tenoning-machine.	June 20, 1871
4,383	McQuiston, Thomas, Morning Sun, Ohio. Cultivator. (Reissue).	May 16, 1871
	McRae, F. (See Decker, James, assignor.)	
111,132	McSherry, Daniel E., Dayton, Ohio. Grain-drill.	Jan. 24, 1871
117,191	Same..... same.	July 18, 1871
121,648	McSherry, Daniel E., and Jacob H. Landis; said Landis assignor to said McSherry, Dayton, Ohio. Grain-drill.	Dec. 5, 1871
116,619	McSteen, Edward, Pittsburgh, Pa. Valve.	July 4, 1871
118,959	McVay, Thomas, Braddock's Field, Pa. Dumping-car.	Sept. 12, 1871
116,977	McWilliams, James H., New York, N. Y. Padlock.	July 11, 1871
	Same. (See Brown, Daniel T., assignor.)	
112,826	McWilliams, Patrick H., Detroit, Mich. Railway shifting-truck.	Mar. 21, 1871
4,620	Meacham, George F., assignor to James W. Tufts, Newton, Mass. Soda-fountain (Design).	Jan. 31, 1871
4,768	Same..... Soda-fountain (Design).	April 4, 1871
	Mead, Albert G., et al. (See Hawkins, Mead & Spear.)	
119,384	Mead, Charles V., Trenton, N. J. Clothes-wringer.	Sept. 26, 1871
117,094	Mead, John, Charlestown, Mass. Liquid-meter.	July 18, 1871
4,255	Mead, Melville E., Darien Depot, Conn. Ventilator (Reissue).	Feb. 7, 1871
118,869	Mead, Nathaniel, Oil City, Pa. Wagon-axle.	Sept. 12, 1871
119,780	Meah, John, assignor to Meriden Malleable Iron Company, Meriden, Conn. Chaudelier-center.	Oct. 10, 1871
	Meals, Jacob, and Reuben M. Weider. (See Weiden & Meals.)	
120,989	Mears, Benjamin F., Washington, Ind. Fence.	Nov. 14, 1871
112,476	Measey, Frederick, assignor to self and Henry D. Fling, Philadelphia, Pa. Apparatus for rectifying spirits.	Mar. 7, 1871
111,228	Medaris, James A., Sullivan, Ind. Combined gang-plow and cultivator.	Jan. 24, 1871
117,660	Medlock, Henry, and William Bailey, England. Preserving animal substances.	Aug. 1, 1871
118,870	Mee, Henry, Crown Point, Ind. Fan and fly-brush combined.	Sept. 12, 1871
112,369	Meech, Harrison B., Fort Edward, N. Y. Propelling canal-boats. (Antedated Feb. 25, 1871).	Mar. 7, 1871
116,978	Same..... Paper-pulp engine.	July 11, 1871
116,979	Same..... Manufacture of paper-pulp.	July 11, 1871
116,980	Same..... Troy, N. Y. Process and apparatus for the manufacture of paper-pulp.	July 11, 1871
	Meeker, John S., et al. (See Hopkins, Reid, Raymond & Meeker.)	
121,797	Meeker, Ross B. Fence.	Dec. 12, 1871
	Meeker, William Lewis, and Andrew Jackson Wight. (See Wight & Meeker.)	
112,268	Megaw, Joseph W., Wilmington, Del. Sash-holder.	Feb. 28, 1871
115,762	Same..... Shutter-fastener.	June 6, 1871
112,827	Megill, Edward L., Brooklyn, N. Y. Platen feed-guide.	Mar. 21, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,186	Megratten, James, Wilmington Del. Earth-closet	Mar. 28, 1871
	Megraw, Jarrett, and George G. Lobdell. (<i>See Lobdell & Megraw.</i>)	
117,908	Meharg, James Metier, Montreal, Canada. Self-closing cock	Aug. 8, 1871
118,960	Mehrer, Charles W., New York, N. Y. Safety-attachment for watch chains or guards	Sept. 12, 1871
115,627	Meier, Edward D., Saint Louis, Mo. Railway-car coupling	June 6, 1871
119,092	Meier, Theodore G., assignor to Adolphus Meier & Co., Saint Louis, Mo. Coke-oven	Sept. 19, 1871
121,535	Meikle, Thomas, Sanford's Corners, N. Y. Shovel-plow	Dec. 5, 1871
	Meilink, Bernard, and Deloy F. Sutton. (<i>See Sutton & Meilink.</i>)	
117,095	Meinig, Julius, Cincinnati, Ohio. Machine for cutting oval tin-bottoms	July 18, 1871
	Melcher, John A., <i>et al.</i> (<i>See Shields, George W., assignor.</i>)	
120,450	Melder, Joseph, Bavaria. Self-heating sad-iron	Oct. 31, 1871
111,762	Melendy, Bryant H., Manchester, N. H. Combined key-ring and door-fastener	Feb. 14, 1871
119,938	Mellish, Henry, Walpole, N. H. Clothes-pin	Oct. 17, 1871
111,536	Meloney, William B., Smyrna, Del. Thill-coupling	Feb. 7, 1871
111,366	Meloy, Edward, and Abram A. Stanley, Shulsburgh, Wis. Sulky-plow	Jan. 31, 1871
110,665	Melvin, Jerome B., Lowell, Mass. Composition for roofing	Jan. 3, 1871
116,470	Melvin, Jerome B., assignor to self, James H. Pindar, and John E. Crane, Lowell, Mass. Machinery for making roofing-felt	June 27, 1871
4,323	Mende, Francis C. and Theodore F., Philadelphia, Pa. Manufacture of German hand-cheese	April 4, 1871
	(<i>Reissue.</i>)	
117,796	Mendelson, Leopold, New York, N. Y. Apparatus for bleaching fabrics	Aug. 8, 1871
	Mendham, William, and Cyrus Chambers, jr. (<i>See Chambers & Mendham.</i>)	
114,584	Meneely, Clinton H., Troy, N. Y. Bell-yoke attachment	May 9, 1871
116,852	Mengel, Charles C., Brooklyn, N. Y., and Alois P. von Pohrnhoff, Saint Catherine's, Canada. Converting the residuum of petroleum into oil	July 11, 1871
114,319	Menzer, Frederick, assignor to self and William Tracey, Flint, Mich. Extension-table	May 2, 1871
120,759	Menzer, Louis, Goodrich, Mich. Table	Nov. 7, 1871
120,760	Same	Nov. 7, 1871
119,469	Menzies, William J., England. Apparatus for grinding rock, quartz, &c.	Oct. 3, 1871
113,683	Mercer, Sophia H., Washington, D. C. Extensible shelving	April 11, 1871
	Merchant, William T., <i>et al.</i> (<i>See Jeffery, Robert, assignor.</i>)	
4,227	Mercier, Ariadna B., Providence, R. I. Clothes-washer	Jan. 3, 1871
	(<i>Reissue.</i>)	
120,592	Mercier, Edward, assignor to self and Little & Stanton, Springfield, Mass. Railway-switch	Nov. 7, 1871
114,177	Meredith, Job L., Bloomingsburgh, Ind. Gate	April 25, 1871
	Meredith, Peter P., Stevensville, Montana Ter. Butter-worker	Sept. 26, 1871
	Meriden Britannia Company, (<i>See Wilcox, Horace C., assignor.</i>)	
	Same	same (Three cases.) (Design.)
	Same	(<i>See Smith, William M., assignor.</i>) (Design.)
	Same	(<i>See Jepson, John, assignor.</i>) (Design.)
	Meriden Malleable Iron Company. (<i>See Wolf, Leopold, assignor.</i>)	
	Same	(<i>See Village, Thomas, assignor.</i>) (Two cases.) (Design.)
	Same	(<i>See Meah, John, assignor.</i>)
	Meriden Silver-Plate Company. (<i>See Casper, Charles, assignor.</i>) (Two cases.) (Design.)	
	Same	(<i>See Hill, John, assignor.</i>) (Design.)
113,322	Merkel, George, and Charles H. Meyer, New York, N. Y. Padlock	April 4, 1871
	Merret, Henry J., and Thomas T. Bishop. (<i>See Bishop & Merret.</i>)	
110,771	Merriam, Charles Rollin, assignor to self and W. H. Merriam, Middlebury, Vt. Horse hay-rake	Jan. 3, 1871
117,909	Merriam, George H., assignor to self and Cyrus S. Clark, Portland, Me. Rail-way-car coupling	Aug. 8, 1871
113,547	Merriam, John C., Olneyville, R. I. Packing pistons of steam-engines, &c.	April 11, 1871
120,307	Merriam, John Q., and Abram J. Dietrick, Fort Scott, Kans. Lime-kiln	Oct. 24, 1871
121,186	Merriam, Lincoln A., assignor to self and Elisha P. Wheeler, New York, N. Y. Sewing-machine	Nov. 21, 1871
112,269	Merrick, William H., Philadelphia, Pa. Device for transmitting and reversing rotary motion	Feb. 28, 1871
115,882	Merrie, Hugh, Cincinnati, Ohio. Non-freezing hydrant	Jan. 13, 1871
	Merrihew, P. E. (<i>See Nott, Aaron B., assignor.</i>)	
114,699	Merriken, Joseph S., Baltimore, Md. Gas-regulator	May 9, 1871
	Merrill, C. H. and A. W., <i>et al.</i> (<i>See Poitras, Zephire, assignor.</i>)	
111,763	Merrill, Charles L., Watertown, N. Y. Pump-valve	Feb. 14, 1871
111,961	Same	Feb. 21, 1871
113,439	Merrill, Edgar C., Charleston, Vt. Manufacture of emery-wheels and artificial stone	April 4, 1871
118,626	Merrill, Edward Annis, New York, N. Y. Packing-bag	Aug. 29, 1871
119,939	Merrill, George, East Orange, N. J. Breech-loading fire-arm	Oct. 17, 1871
119,940	Same	Oct. 17, 1871
118,379	Merrill, Helem, Brooklyn, N. Y. Separator for gold-ore. (Antedated Aug. 16, 1871)	Aug. 22, 1871
	Merrill, Herbert S. (<i>See Annan, Charles F., assignor.</i>) (Two cases.)	
	Merrill, Horace, and Herman S. Gurney. (<i>See Gurney & Merrill.</i>)	
4,954	Merrill, John F., Cincinnati, Ohio. Fruit-can	May 30, 1871
112,477	Merrill, John F., assignor to self and Alexander Stewart, Cincinnati, Ohio. Tin can	Mar. 7, 1871
	Merrill, Rufus S. (<i>See White, Lewis, assignor.</i>) (Reissue.)	
	Same	(<i>See Halvorson, Halvor, assignor.</i>) (Reissue.)
121,394	Same	Boston, Mass. Lamp-burner
111,072	Merrill, Rufus S., assignor to self, William B., and Joshua Merrill, Boston, Mass. Lamp	Jan. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,073	Merrill, Rufus S., assignor to self, William B. and Joshua Merrill, Boston, Mass. Lamp-chimney	Jan. 17, 1871
111,074	Same..... Lamp-burner	Jan. 17, 1871
	Merrill, Rufus S., and Charles E. Abbott. (See Abbott & Merrill.)	
	Merrill, Rufus S., William B., and Joshua. (See North, Albert H., assignor.)	
	(Reissue.)	
	Same..... (See Halvorson, Halvor, assignor)..... (Reissue.)	
115,082	Merriman, Alanson H., West Meriden, Conn. Water-wheel	May 23, 1871
115,973	Merriman, Alfred, assignor to self and Freeman Carleton, Plantsville, Conn. Molders' flask	June 13, 1871
4,264	Merriman, Andrews T., and Thomas Ross, assignors through mesne assignments to Thomas Ross and Rockwood Barrett, Rutland, Vt. Machine for channeling stone	Feb. 14, 1871
116,853	Merriman, Edward, assignor to self and Hugh Coll, Allegheny City, Pa. Steam-piston	July 11, 1871
4,638	Merriman, Julius E., assignor to Foster, Merriam & Co., West Meriden, Conn. Drawer-pull	Feb. 7, 1871
114,586	Merritt, Franklin S., Boston, Mass. Japanned leather	May 9, 1871
115,083	Same..... Manufacture of Japanned leather	May 23, 1871
117,910	Merry, Charles T., and Marlin A. Dunton, Norwalk, Ohio. Corn-planter	Aug. 8, 1871
4,644	Mershon, Albert H., Philadelphia, Pa. Mode of regulating the draught of hot-air furnaces	Nov. 21, 1871
4,796	Mershon, Augustus H., East Saginaw, Mich. Box	April 11, 1871
118,470	Mervep, John J., New York, N. Y. Horseshoe-calk	Aug. 29, 1871
119,772	Merwin, Abel, Saint Joseph, Mich. Corn-husker	Jan. 3, 1871
	Merwin, Charles, <i>et al.</i> (See Thompson, James M., assignor.)	
	Mesmer, Michael, and John Kihlberg. (See Stanton, Joseph, assignor.)	
	Messenger, Austin E. (See Nash, Stephen B., assignor.)	
120,389	Messenger, Charles A., Syracuse, N. Y. Rein-holder	Oct. 31, 1871
112,615	Messinger, Joseph. Mop-head	Mar. 14, 1871
118,961	Mesteer, John R., Galveston, Tex. Railway-car truck	Sept. 12, 1871
	Metallic Art Works. (See Smith, John Joseph Charles, assignor.)	
	Metallic Union Spring Company. (See Rich, Charles, assignor)..... (Reissue.)	
	Same..... same.	
	Metcalf, Aaron and John, <i>et al.</i> (See Parkinson, Metcalf & Heald.)	
120,990	Metcalf, Henry, New York, N. Y. Metallic cartridge	Nov. 14, 1871
113,187	Metherd, John F., and Solomon Young, Union City, Ind. Bee-hive	Mar. 28, 1871
	Metropolitan Washing-Machine Company. (See Bailey, Alfred M., assignor.)	
	(Two cases.)	
	Same..... (See Whitney, Washington, assignor)..... (Reissue.)	
	Same..... (See Cummings & Swallow, assignors)..... (Reissue.)	
110,770	Mets, Elisha, and Merrill E. Carter. (See Carter & Mets)..... (Reissue.)	
	Metten, George R., Cleveland, Ohio, and Oscar S. Pease, Xenia, Ohio, said Metten assignor to said Pease. Fare-recorder for cars, &c.	Jan. 3, 1871
116,735	Mettler, James L., Mendota, Ill. Corn-harvester	July 4, 1871
117,441	Same..... Combined ditcher and pipe-layer	July 25, 1871
5,429	Metz, Bernhard, New York, N. Y. Water-proof goods	Dec. 19, 1871
5,430	Same..... same	Dec. 19, 1871
5,431	Same..... same	Dec. 19, 1871
5,432	Same..... same	Dec. 19, 1871
117,661	Metz, David, Mahanoy, Pa. Pump-valve	Aug. 1, 1871
118,739	Metz, Edward A., Cincinnati, Ohio. Method and apparatus for making cigars	Sept. 5, 1871
119,633	Metz, John W., Stouts, Ohio. Ditching-machine	Oct. 3, 1871
114,837	Metzger, Joseph, East Cambridge, Mass. Apparatus for aerating beer-barrels	May 16, 1871
117,472	Meyer, Anton, Germany. Watchman's time-check	July 25, 1871
	Meyer, Charles H., and George Merkel. (See Merkel & Meyer.)	
4,654	Meyer, Charles T., assignor to Edward C. Sampson, Newark, N. J. Floor-cloth pattern	Feb. 14, 1871
4,655	Same..... Floor oil-cloth pattern	Feb. 14, 1871
4,656	Same..... same	Feb. 14, 1871
4,657	Same..... same	Feb. 14, 1871
4,658	Same..... same	Feb. 14, 1871
4,659	Same..... same	Feb. 14, 1871
4,660	Same..... same	Feb. 14, 1871
4,661	Same..... same	Feb. 14, 1871
4,890	Same..... Carpet-pattern	May 9, 1871
4,891	Same..... same	May 9, 1871
4,892	Same..... same	May 9, 1871
4,893	Same..... same	May 9, 1871
4,894	Same..... same	May 9, 1871
5,112	Same..... Floor oil-cloth pattern	July 11, 1871
5,113	Same..... same	July 11, 1871
5,114	Same..... same	July 11, 1871
5,115	Same..... same	July 11, 1871
5,116	Same..... same	July 11, 1871
5,309	Same..... Lyons Farm, N. J. Floor oil-cloth pattern	Oct. 10, 1871
5,310	Same..... same	Oct. 10, 1871
5,311	Same..... same	Oct. 10, 1871
4,769	Meyer, Christopher, New York, N. Y. Ornamentation of rubber shoes	April 4, 1871
4,861	Same..... Rubber-shoe	May 2, 1871
4,862	Same..... same	May 2, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,962	Meyer, Christopher, New York, N. Y., and John Evans, New Brunswick, N. J. India-rubber shoe	Feb. 21, 1871
	Meyer, Ferdinand. (See Hodgins, Samuel, assignor.)	
115,338	Meyer, Frederick, New York, N. Y. Culinary boiler	May 30, 1871
122,015	Same.....Newark N. J. Machine for forming scale-pans	Dec. 19, 1871
5,149	Meyer, Jeremiah, assignor to D. Powers & Sons, Newark, N. J. Floor oil-cloth pattern (Design)	Aug. 1, 1871
111,075	Meyer, L. Otto P., Newtown, Conn. Manufacture of safety-matches	Jan. 17, 1871
118,627	Same.....Match-box. (Antedated Aug. 24, 1871)	Aug. 29, 1871
118,628	Same.....Match-holder. (Antedated Aug. 25, 1871)	Aug. 29, 1871
120,859	Same.....Match-box	Nov. 14, 1871
120,890	Same.....Match-holder	Nov. 14, 1871
120,891	Same.....same	Nov. 14, 1871
120,892	Same.....Pocket match-case	Nov. 14, 1871
4,927	Meyer, Victor E., assignor to Samuel W. Dunn, Lansingburgh, N. Y. Floor oil-cloth pattern (Design)	May 23, 1871
4,968	Meyer, Victor E., assignor to Deborah, Albert E., and Nathaniel B. Powers, Lansingburgh, New York, N. Y. Floor-cloth pattern (Design)	May 30, 1871
114,459	Meyer, William E., New York, N. Y. Sail-hank	May 2, 1871
	Meyer, William H., <i>et al.</i> (See Evens, Julien T., assignor.)	
	Meyers, George H. (See Lovegrove, Thomas J., assignor.)	
117,797	Meyers, Nicholas, Buffalo, N. Y. Sewing-machine	Aug. 8, 1871
116,736	Michael, Philip, Frostburgh, Md. Weeding-tool	July 4, 1871
122,186	Michales, James, jr., and Richard J. Combs, Bergen, N. J. Brush. (Antedated Dec. 23, 1871)	Dec. 26, 1871
	Méchaud, Alfred, and Charles de Frondat. (See Prud'homme, Pierre D., assignor.)	
	Michigan Bolt and Nut Company. (See Briscoe, Benjamin and Joseph A., assignors.)	
112,478	Michna, John, and George Fischer, New York, N. Y. Take-up mechanism for looms	Mar. 7, 1871
120,451	Mickel, Joseph, East Birmingham, Pa. Medical compound or salve for the cure of rheumatism	Oct. 31, 1871
122,046	Mickle, Charles, Guelph, Canada. Propulsion of vessels	Dec. 19, 1871
118,810	Mickle, William H., Utica, N. Y. Hay-tedder. (Antedated Aug. 24, 1871)	Sept. 12, 1871
	Middleton, Elijah C. (See Winchell, James F., assignor.)	
110,666	Middleton, John W., Philadelphia, Pa. Purification of cast-iron	Jan. 3, 1871
110,990	Same.....Producing refined cast-iron, steel, and malleable iron. (Antedated Jan. 8, 1871)	Jan. 17, 1871
112,828	Same.....Manufacture of iron and steel	Mar. 21, 1871
112,829	Same.....Crane	Mar. 21, 1871
116,620	Middleton, Nathan, and Stephen Morris, Philadelphia, Pa. Hot-water heater	July 4, 1871
	Middleton, Nathan and Allen, jr. (See Keely, John W., assignor.)	
	Middleton, Samuel E. and Daniel W. (See Egerton, Charles C., assignor.)	
117,192	Middleton, William A., assignor to self and George Winters, Harrisburgh, Pa. Broom	July 12, 1871
120,308	Middleton, William A., Harrisburgh, Pa. Fence-post	Oct. 24, 1871
	Same.....(See Sterick, Charles W., assignor.)	
115,974	Middleton, William R., Cleveland, Ohio. Crozing-machine	June 13, 1871
114,321	Middleton, William R. and Edward, Cleveland, Ohio. Barrel-machine	May 2, 1871
112,830	Mielisch, Hermann, Racine, Wis. Peat-machine	Mar. 21, 1871
113,440	Mihills, Merrick A., Lodi, Ohio. Apparatus for drawing water from wells	April 4, 1871
114,322	Mihills, Uriah D., Fond du Lac, Wis. Shingle-machine	May 2, 1871
115,498	Milbank, Isaac M., Greenfield Hill, Conn. Cartridge. (Antedated May 26, 1871)	May 30, 1871
121,536	Miles, Alexander, Toledo, Ohio. Compound for cleansing the hair	Dec. 5, 1871
118,546	Miles, Charles M., assignor to self and Solomon Matthews, Milford, Del. Water-wheel	Aug. 29, 1871
111,859	Miles, Frederick B., assignor to Ferris & Miles, Philadelphia, Pa. Turning-lathe	Feb. 14, 1871
	Miles, Frederick B., and Oscar C. Ferris. (See Ferris & Miles.)	
112,616	Miles, George W., Lynn, Mass. Treadle for sewing and other machines	Mar. 14, 1871
118,629	Miles, Hiram C., Saint Joseph, Mich. Heating-stove	Aug. 29, 1871
111,860	Miles, Stephen S., Delta, N. Y. Wash-boiler	Feb. 14, 1871
120,390	Miles, William H., jr., New York, N. Y. Lather-brush	Oct. 31, 1871
	Milford, Robert W., <i>et al.</i> (See Salvo, Christopher, assignor.)	
	Miller, George W. (See Lovell, Joseph J., assignor.)	
	Miller, Absalom, Daleville, Ala. Gun-lock	Sept. 26, 1871
115,339	Miller, Benjamin F., New York, N. Y. Ventilator	May 30, 1871
111,664	Miller, Charles H., and William Aseough, Buffalo, N. Y. Vent-plug	Feb. 7, 1871
118,811	Same.....Vent-bung	Sept. 12, 1871
113,076	Miller, Curtis, assignor to self and Jeremiah R. Rogers, Lincoln, Pa. Separator for thrashing-machines	Mar. 28, 1871
116,471	Miller, Curtis, assignor to self and J. R. Royer, Lincoln, Pa. Binders' platform for harvesters	June 27, 1871
	Miller, Daniel. (See Zeiler, Daniel, assignor.)	
120,452	Miller, Daniel, assignor to self and Jacob Miller, Marietta, Ohio. Clothes-drier	Oct. 31, 1871
121,933	Same.....Clothes-rack	Dec. 19, 1871
	Miller, Daniel, and Robert May Caffall. (See Caffall & Miller.)	
110,991	Miller, David, Allegheny City, Pa. Lunch-box	Jan. 17, 1871
116,737	Miller, D. K., Reading, Pa. Permutation-lock. (Antedated June 23, 1871)	July 4, 1871
	Miller, Elias, and John Sowder. (See Sowder & Miller.)	
120,761	Miller, Franklin, Pittsburgh, Pa. Water-ram	Nov. 7, 1871
120,991	Miller, Frederick L., Brooklyn, N. Y. Soldering-apparatus	Nov. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,630	Miller, Friend, assignor to Simpson, Hall, Miller & Co., Wallingford, Conn. Ice-pitcher.....	Aug. 29, 1871
113,077	Miller, George, and Phillip Hannah, assignors to selves and John Gorton, jr., Rochester, N. Y. Folding-chair.....	Mar. 28, 1871
121,883	Miller, George W. (<i>See</i> Weicker, Henry W., assignor.)	
5,226	Miller, Gideon H., Belvidere, Ill. Washing-machine.....	Dec. 12, 1871
115,499	Miller, Henry S., assignor to self and Samuel H. Davis, jr., Philadelphia, Pa. Saw..... (Design)	Aug. 22, 1871
115,500	Miller, Henry S., assignor of one-half interest to Samuel H. Davis, Philadelphia, Pa. Saw-frame.....	May 30, 1871
118,143	Same.....same.....	May 30, 1871
120,309	Miller, Herman, Belleville, Tex. Steam-plow.....	Aug. 15, 1871
120,309	Miller, Isaac M., Huntsville, Ala. Apparatus for exhibiting cards, &c.....	Oct. 24, 1871
115,237	Miller, James, and Napoleon Dubriel, Joliet, Ill. Machine for shelling corn.....	May 23, 1871
119,987	Miller, James B., assignor to self and Thomas W. Bell, Pittsburgh, Pa. Reaming tool.....	Oct. 17, 1871
5,150	Miller, James H., assignor to self and Charles Krips, Philadelphia, Pa. Medalion head of Washington..... (Design)	Aug. 1, 1871
5,433	Same.....Medallion head of Jackson..... (Design)	Dec. 19, 1871
117,798	Miller, James S., Terre Haute, Ind. Joist-hook.....	Aug. 8, 1871
120,453	Miller, James W. (<i>See</i> Talbott, Ezra W., assignor.)	
117,911	Miller, Joel B., Rondout, N. Y. Cigar-lighter.....	Oct. 31, 1871
4,233	Miller, John, Swan, Ind. Harvester-reel.....	Aug. 8, 1871
114,700	Miller, John, jr., Marshalltown, Iowa. Lock-nut..... (Reissue)	Feb. 28, 1871
119,634	Miller, John C., Danville, Conn. Lathe-chuck.....	May 9, 1871
5,301	Miller, John D., assignor to Detroit Stove Works, Detroit, Mich. Heating-stove.....	Oct. 3, 1871
5,261	Same.....Heating-stove..... (Design)	Oct. 3, 1871
120,593	Miller, John Ernest, assignor to Sweeny, McCluney & Co., Birmingham, Pa. Ornamentation of glassware..... (Design)	Sept. 12, 1871
4,495	Miller, John Ernest, assignor to self and Washington Beck, Birmingham, Pa. Lathe-attachment for chasing designs on molds.....	Nov. 7, 1871
111,467	Miller, John P., Somerville, N. J. Fruit-drier..... (Reissue)	Aug. 1, 1871
120,762	Miller, John V. R., Richmond, Ind. Fruit-drier.....	Jan. 31, 1871
114,023	Miller, Jonathan, Watkins, N. Y. Hinge.....	Nov. 7, 1871
118,962	Miller, Joseph, Detroit, Mich. Grain-separator.....	April 25, 1871
111,367	Miller, Joseph A., Providence, R. I. Grate-bar.....	Sept. 12, 1871
113,907	Miller, Joseph H., Areadia, N. C. Thrashing-machine. (Antedated Jan. 23, 1871)	Jan. 31, 1871
111,229	Miller, Louis, Baltimore, Md. Scroll-saw.....	April 18, 1871
119,873	Miller, Lannon C., Humphrey, N. Y. Brace for carriage and other springs.....	Jan. 24, 1871
115,628	Miller, Martha J., Bloomington, Ill. Combined table, bureau, cupboard, and sink.....	Oct. 10, 1871
118,237	Miller, Max, Brooklyn, N. Y. Toy-whistle.....	June 6, 1871
110,773	Miller, Michael, Waterloo, Ind. Wagon.....	Aug. 22, 1871
116,472	Miller, Robert R., Plantsville, Conn. Method of forming body-loops for carriages.....	Jan. 3, 1871
115,340	Same.....Body-loop.....	June 27, 1871
117,912	Miller, Rutger B., Utica, N. Y. Eves-trough and conductor.....	May 30, 1871
111,764	Miller, Samuel, Gratis, Ohio. Combination-lock.....	Aug. 8, 1871
115,084	Miller, Samuel H., Hamilton, Ill. Plow-beam.....	Feb. 14, 1871
120,310	Miller, Solomon, and Edward Claringdon; said Miller assignor to Samuel Thomas, Waterloo, N. Y. Excavator.....	May 23, 1871
111,861	Miller, Thomas, <i>et al.</i> (<i>See</i> Wiley, Moses H., assignor.)..... (Design)	
115,341	Miller, Thomas W., Montezuma, Ind. Washing-machine.....	Oct. 24, 1871
112,062	Miller, Watson J., assignor to Simons & Miller, Middletown, Conn. Coffee-pot.....	Feb. 14, 1871
112,062	Miller, William, Boston, Mass. Lock for meeting-rails of sashes.....	May 30, 1871
112,479	Miller, William, assignor to self and C. E. Woodman, Boston, Mass. Carpenters' plane.....	Feb. 21, 1871
119,236	Miller, William A., and Robert V. Jenks. (<i>See</i> Jenks & Miller.)	
4,587	Miller, William H., Brandenburg, Ky. Combined baker and broiler.....	Mar. 7, 1871
118,144	Miller, William Hartley, Philadelphia, Pa. Fender for gas-brackets.....	Sept. 26, 1871
111,076	Same.....Piston-rod packing..... (Reissue)	Oct. 10, 1871
115,076	Miller's Falls Manufacturing Company. (<i>See</i> McCoy, William H., assignor.)	
122,126	Same.....(<i>See</i> Sawyer, Samuel, assignor.)	
118,144	Millett, Nathaniel J., and Erastus Woodward. (<i>See</i> Woodward & Millett.)	
111,076	Millett, Thomas M., sr., Savannah, Ga. Wine and cider press.....	Aug. 15, 1871
115,055	Millholland, James A., Mount Savage, Md. Brick-press.....	Jan. 17, 1871
122,126	Milligan, Henry C., assignor to Florian Grosjean, South Orange, N. J. Spoon.....	May 23, 1871
118,963	Milligan, James T., assignor to self and Joseph W. Branch, Duquoin, Stove-leg. (Antedated Dec. 20, 1871)	Dec. 26, 1871
121,953	Milligan, Julia M., New Albany, Ind. Abdominal-supporter..... (Extension)	Feb. 10, 1871
110,930	Milliken, David, New York, N. Y. Machine for splitting wood.....	Sept. 12, 1871
4,262	Milliken, William H., Baltimore, Md. Whip-socket.....	Dec. 19, 1871
4,523	Millingar, Henry, Pittsburgh, Pa. Valve for oil-pumps. (Antedated Dec. 30, 1870)	Jan. 10, 1871
115,553	Millington, Norman, assignor through mesne assignments to the Eagle Square Company, Shaftsbury, Vt. Machine for figuring carpenters' squares. (Reissue)	Feb. 14, 1871
115,553	Millington, Norman, assignor to the Eagle Square Company, Shaftsbury, Vt. Machine for graduating squares and rules..... (Reissue)	Aug. 22, 1871
115,553	Millner, George W., Charlottetown, Prince Edward Island. Seed-drill.....	May 30, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,831	Millocchan, Adolph, New York, N. Y. Apparatus for refining metals.	Mar. 21, 1871
115,342	Millocchan, Adolph, assignor to Joseph W. Richards, New York, N. Y. Lubricating compound.	May 30, 1871
110,667	Mills, Cassius A., Bridgeport, Conn. Motive-power apparatus.	Jan. 3, 1871
113,548	Mills, Charles W., Chicago, Ill. Folding-table top.	April 11, 1871
	Mills, E. Lyman. (See McGlashan, John W., assignor.)	
112,162	Mills, Francis E., San Francisco, Cal. Treadle for sewing-machines.	Feb. 28, 1871
117,443	Mills, Isaac, Hamilton, Canada. Cloth-measuring machine.	July 25, 1871
113,441	Mills, James R., Macon City, Mo. Wheel for vehicles.	April 4, 1871
	Mills, Jesse C., and Achille Extein. (See Extein & Mills.)	
112,063	Mills, John C., assignor to self and Richard Leake, Rochester, N. Y. Auger-bit.	Feb. 21, 1871
112,617	Same. Potato-planter.	Mar. 14, 1871
110,668	Mills, John H., Boston, Mass., and John Howarth, Salem, Mass. Hot-water feeder for steam-boilers.	Jan. 3, 1871
121,395	Mills, John H., Boston, Mass. Sectional steam-boiler.	Nov. 28, 1871
114,840	Mills, Lawrence R., Tekonsha, Mich. Washing-machine.	May 16, 1871
	Mills, Lucien, and Alonzo T. Boon. (See Boon & Mills.)	
115,228	Mills, Richard L., Springfield, Ohio. Coffee-roaster.	May 23, 1871
111,765	Mills, Thomas and George M., Philadelphia, Pa. Machine for making candy.	Feb. 14, 1871
112,163	Mills, William, New York, N. Y. Explosive compound.	Feb. 28, 1871
115,501	Millward, Frank, Cincinnati, Ohio. High and low water indicator for steam-boilers.	May 30, 1871
121,058	Milner, Edward, Strathroy, Canada. Bent cutter bench and knee.	Nov. 21, 1871
111,133	Milner, Edward, assignor to Charles H. Mackintosh, Marquette, Mich. Compound for preserving drain-tiles, bricks, &c.	Jan. 24, 1871
	Milner, Wesley, and Milton Durnell. (See Durnell & Milner.)	
121,396	Milnor, Joseph K., Baltimore, Md. Sawing-machine.	Nov. 28, 1871
	Miltimore, George W., and Ellis Doty. (See Doty & Miltimore.)	
111,230	Milwain, John, Nashville, Tenn. Folding-desk.	Jan. 24, 1871
115,629	Miuer, James G., Nashville, Tenn. Plow.	June 6, 1871
117,662	Same. same.	Aug. 1, 1871
121,884	Miner, Stephen H., Winona, Minn. Lightning-rod.	Dec. 12, 1871
118,871	Minetree, James, Petersburg, Va. Brush.	Sept. 12, 1871
113,549	Mingay, Edward, Boston, Mass. Fire-pot for stoves and furnaces.	April 11, 1871
117,096	Same. Cooking-range.	July 18, 1871
111,963	Minniss, Nathan S., Oil City, Pa. Cooking-stove attachment.	Feb. 21, 1871
118,964	Minor, John W., Middleborough, Mass. Picket-pointer.	Sept. 12, 1871
112,370	Minor, Peter E., Schenectady, N. Y. Water-proof compound for coating cloth, wood, metals, &c.	Mar. 7, 1871
117,663	Minott, Levi E., Sheboygan, Wis. Wood-bending machine.	Aug. 1, 1871
117,664	Same. Retaining-strap for bending timber.	Aug. 1, 1871
4,641	Minter, James, assignor to self, Jonathan Hope, and Robert H. Butcher, Lowell, Mass. Bolt-heading machine.	Nov. 21, 1871
116,208	Mitchell, Andrew W., assignor to self and Henry W. Yates, Detroit, Mich. Scroll-sawing machine.	June 20, 1871
117,097	Mitchell, Augustus F., Valparaiso, Ind. Brick-machine.	July 18, 1871
116,981	Mitchell, Charles K., Greenville, Mich. Bag-holder.	July 11, 1871
120,084	Mitchell, Channey L., assignor of one-half interest to William Heckle, Westborough, Mass. Flocked fabric for hats, bonnets, &c.	Oct. 17, 1871
118,872	Mitchell, George E., Lowell, Mass. Medicated plaster.	Sept. 12, 1871
	Mitchell, Harvey J. (See Nevenger, George, assignor.)	
114,841	Mitchell, John C., and Abraham H. Stark. (See Stark & Mitchell.)	
	Mitchell, John M., Cincinnati, Ohio. Keeper for bolts.	May 16, 1871
	Mitchell, Michael L. et al. (See Shields, George W., assignor.)	
112,948	Mitchell, Robert. (See Plumb, Charles, assignor.)	
	Mitchell, Robert B., Chicago, Ill. Steaming-attachment for kerosine stoves. (Antedated March 10, 1871.)	Mar. 21, 1871
117,799	Mitchell, Rufus S., et al. (See Knight, Ebenezer, assignor.)	
	Mitchell, Samuel, assignor to self and Stephen B. Tidd, Lima, N. Y. Socket for connecting spokes and felloes.	Aug. 8, 1871
110,774	Mitchell, Thomas W., assignor to self and Robert P. Briscoe, Richmond, Tex. Compound for destroying worms in the cotton-plant.	Jan. 3, 1871
	Mitchell, Vance & Co. (See Vance, Samuel B. H., assignor.) (Reissue.)	
111,231	Mitchell, Walter G., Holliston, Mass. Portable esrtoire.	Jan. 24, 1871
111,232	Mithoff, Edward T., and Jesse W. Dann, Columbus, Ohio. Buggy-seat.	Jan. 24, 1871
4,506	Mix, Garry L., Yalesville, Conn. Iron spoon. (Reissue.)	Aug. 8, 1871
	Same. same. (Extension.)	Oct. 13, 1871
119,041	Mix, John W., Batavia, N. Y. Pruning-shears.	Sept. 19, 1871
	Mize, Jefferson. (See Harrison, Marshall, assignor.)	
	Modica, Frank B. (See Crabill, Joseph R., assignor.)	
121,059	Moeller, Heinrich F., and Hermann P. Brandt, Davenport, Iowa. Tool for boring cigar-molds.	Nov. 21, 1871
111,665	Moffitt, Alexander, Washington, D. C. Wagon.	Feb. 7, 1871
116,854	Moffitt, David J., Thorntown, Ind. Water-gate.	July 11, 1871
	Same. (See Edgerton, Joseph W., assignor.)	
113,323	Moffitt, Simon, Minneapolis, Minn. Awning for animals.	April 4, 1871
118,040	Molino, Angelo, assignor to the United States Cartridge Company, New York, N. Y. Gunpowder.	Aug. 15, 1871
118,631	Moltz, Adam, New York, N. Y. Sewing-machine.	Aug. 29, 1871
122,047	Monaghan, Joseph, New York, N. Y., and Thomas Flynn, Brooklyn, N. Y., assignors to Joseph Monaghan. Pen and pencil case.	Dec. 19, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,502	Moncrief, Alexander, Scotland. Mounting and working ordnance.....	May 30, 1871
116,855	Monfort, Oscar F., Dearborn, Mich. Churn.....	July 11, 1871
	Monitor Shield Company. (See Foster, Samuel C., assignor.)	
121,462	Monk, John, Norwich, Conn. Metallic hub for wheels.....	Dec. 5, 1871
	Monk, William Gowers. (See Caffall & Miller, assignors.)	
113,188	Monnet, Francisque, New York, N. Y. Vegetable-cutter.....	Mar. 28, 1871
	Monnier, Alfred, Philadelphia, Pa. Manufacture of sulphuric acid. (Extension).	July 26, 1871
121,798	Same.....Separating metals from a mixture of metallic and alkaline sulphates.....	Dec. 12, 1871
121,799	Same.....Treating metallic and alkaline sulphates to separate copper, &c.	Dec. 12, 1871
121,855	Monroe, Charles W., assignor to Susan M. and Julia H. Monroe, Chicago, Ill. Glossing and fluting iron.....	Dec. 12, 1871
116,338	Monroe, Henry, Baldwinville, N. Y. Machine for washing and bleaching paper-stock.....	June 27, 1871
118,380	Monroe, John S., Mitchell, Ind. Sample-frame for merchants.....	Aug. 22, 1871
	Monson, Charles, New Haven, Conn. Extension gas-tube..... (Extension)	Aug. 23, 1871
112,164	Montague, Dwight B., Springfield, Mass. Portable furnace.....	Feb. 28, 1871
118,873	Montfort, James, Newburgh, N. Y. Cut-off valve-gear for steam-engines.....	Sept. 12, 1871
4,546	Montgomery, Henry and Simeon Howes, assignors through mesne assignments to Simeon Howes, Alpheus and Norman Babcock, and Carlos Ewell, Silver Creek, N. Y. Grain-separator..... (Reissue)	Sept. 12, 1871
119,387	Montgomery, Henry H., Greensburgh, Ind. Churn.....	Sept. 26, 1871
111,862	Montgomery, James, Croton Landing, N. Y. Construction of car-axles and shafts.	Feb. 14, 1871
121,187	Same.....New York, N. Y. Constructing axles. (Antedated Nov. 9, 1871)	Nov. 21, 1871
	Montigny, Joseph, and Louis Christophe. (See Christophe & Montigny.)	
	Moody, James C., and Nicholas J. Allen. (See Allen & Moody.)	
115,763	Moody, Joseph G., New York, N. Y. Hand-stamp.....	June 6, 1871
119,470	Moody, Nelson B., assignor to self and John Murray, Woodman, Wis. Corn-planter.....	Oct. 3, 1871
112,832	Moody, Theodore F., Toledo, Ohio. Apparatus for removing paint, varnish, &c. (Antedated March 14, 1871.)	Mar. 21, 1871
116,339	Moore, Hazen, Chicago, Ill. Hot-air furnace.....	June 27, 1871
117,098	Moon, Benjamin, Coventry, R. I. Drawing-frame.....	July 18, 1871
117,193	Mooney, Charles M., Scotch Plains, N. J. Water-wheel.....	July 18, 1871
	Mooney, John H., and Hannah G. Suplee. (See Suplee & Mooney.)	
119,237	Mooney, John H., and George A. Lloyd, San Francisco, Cal. Animal-trap.....	Sept. 26, 1871
	Mooney, Stephen W. (See Rionff, Henry L., assignor.)	
111,077	Moore, Albert L., and Norman S. Parker, El Dorado, Oreg. Water-wheel.....	Jan. 17, 1871
	Moore, Alexander I. (See Grim, Louis, assignor.)	
113,078	Moore, Arthur F., Florence, Ind. Machine for turning axles.....	Mar. 28, 1871
116,340	Moore, Charles, New York, N. Y. Automatic governor and cut-off device for steam-engines.....	June 27, 1871
111,134	Moore, Charles, assignor to Jose F. de Navarro, New York, N. Y. Meter.....	Jan. 24, 1871
111,233	Moore, Charles, assignor to William Tobin, New York, N. Y. Fluid-meter.....	Jan. 24, 1871
111,234	Same.....Liquid-meter.....	Jan. 24, 1871
119,990	Moore, Charles A., assignor to self and M. Hartley, Westbrook, Conn. Glass clock-case.....	Oct. 17, 1871
112,165	Moore, Charles C., New York, N. Y. Portable book-holder.....	Feb. 28, 1871
115,764	Same.....Folding-box.....	June 6, 1871
121,650	Same.....Window-awning.....	Dec. 5, 1871
118,041	Moore, Charles D., Lawrence, Mass. Jig-saw.....	Aug. 15, 1871
4,993	Moore, Charles E., New York, N. Y. Long comb..... (Design)	June 13, 1871
114,460	Moore, Charles E., assignor to self and Martin L. Wyman, Boston, Mass. Elevator.	May 2, 1871
119,635	Same.....same.....	Oct. 3, 1871
114,957	Moore, Charles E., assignor to Hiram B. Nickerson, Boston, Mass. Feeding-mechanism for file-cutting machines. (Antedated May 6, 1871)	May 16, 1871
117,665	Moore, Charles F., Snedikerville, Pa. Blacksmiths' hardy.....	Aug. 1, 1871
111,368	Moore, Charles S. and Silas A.; said Silas A. Moore assignor to Harland Boyd, Worcester, Mass. Lamp-chimney and dish-washer.....	Jan. 31, 1871
121,955	Moore, Charles S., and Harland P. Boyd, assignors to Washington Whitney, Worcester, Mass. Crockery and lamp-chimney mop. (Antedated Nov. 29, 1871)	Dec. 19, 1871
4,276	Moore, Daniel and Edwin, assignors to the Bissell & Moore Manufacturing Company, New York, N. Y. Saw-frame..... (Reissue)	Feb. 21, 1871
120,763	Moore, Daniel, assignor to Eugene Bissell, Brooklyn, N. Y. Ferrule (Antedated Oct. 28, 1871)	Nov. 7, 1871
4,831	Moore, Edward C., assignor to Tiffany & Co., Yonkers, N. Y. Spoon or fork handle..... (Design)	April 18, 1871
5,077	Same.....Spoon or fork handle..... (Design)	July 4, 1871
119,782	Moore, Francis M., Chico, Cal. Medical compound for sore-throat, &c.	Oct. 10, 1871
	Moore, Gabriel, and John W. Wood. (See Wood & Moore.)	
121,294	Moore, George H., Norwich, Conn. Concrete-pavement.....	Nov. 28, 1871
121,397	Same.....Composition for pavements, &c.....	Nov. 28, 1871
121,651	Same.....Inlaying plastic pavements.....	Dec. 5, 1871
113,324	Moore, George R., Philadelphia, Pa. Furnace-grate.....	April 4, 1871
113,908	Same.....Fire-grate.....	April 18, 1871
117,099	Same.....Steam-trap.....	July 18, 1871
117,194	Same.....Stove-grate.....	July 18, 1871
118,874	Same.....same.....	Sept. 12, 1871
116,473	Moore, George W., Newark, N. J. Pliers.....	June 27, 1871
	Moore, Henry. (See Broughton, John, assignor.)..... (Reissue)	
	Moore, Henry and Charles B. (See Newton, Jason, assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
117,913	Moore, Henry J., Topeka, Kans. Potato-digger.....	Aug. 8, 1871
5,227	Moore, James B., and John P. Robitzer, Pittsburgh, Pa. Sign..... (Design).....	Aug. 22, 1871
112,480	Moore, James D., Grinnell, Iowa. Shuttle for sewing-machines.....	Mar. 7, 1871
116,922	Moore, James L., Bridgeport, Conn. Watch-key.....	July 11, 1871
118,381	Moore, Jehu C., Madison, Ind. Thill-coupling.....	Aug. 22, 1871
4,804	Moore, Jonathan, and William Wilkinson, assignors to Jonathan Moore and A. Horton, Brooklyn, N. Y. Ornament for fountains, &c (Design).....	April 11, 1871
4,805	Same..... same..... (Design).....	April 11, 1871
4,806	Same..... same..... (Design).....	April 11, 1871
4,807	Same..... same..... (Design).....	April 11, 1871
4,808	Same..... same..... (Design).....	April 11, 1871
4,809	Same..... same..... (Design).....	April 11, 1871
4,906	Same..... Ornament for fountains..... (Design).....	May 16, 1871
4,907	Same..... same..... (Design).....	May 16, 1871
4,846	Moore, Jonathan, jr., Brooklyn, N. Y. Clock-front..... (Design).....	April 25, 1871
119,874	Moore, Joshua H., Deep River, Conn., and James B. Clark, Chester, Conn. Rudder-attachment.....	Oct. 10, 1871
117,800	Moore, J. Owen, Albany, N. Y. Burial-casket. (Antedated Aug. 2, 1871).....	Aug. 8, 1871
114,178	Moore, Levi, Baraboo, Wis. Fence.....	April 25, 1871
116,474	Moore, Louis L., and R. B. S. Whyre; said Moore assignor to said Whyre, Calhoun, Ky. Composition for the cure of piles.....	June 27, 1871
122,187	Moore, Reuselaer R., Cortland, N. Y. Gun-barrel.....	Dec. 26, 1871
4,709	Moore, Roswell A., Kensington, Conn. Garden-tool..... (Design).....	Mar. 14, 1871
117,914	Moore, Samuel C., Patonsburgh, Mo. Bee-hive.....	Aug. 8, 1871
111,863	Moore, Stephen, assignor to self and Homer Rogers, Sudbury, Mass. Manufacture of shoe-shanks.....	Feb. 14, 1871
121,800	Same..... Paper-calendering machine.....	Dec. 12, 1871
111,666	Moore, Stillman. (See Bidwell, Henry M., assignor.)	
119,527	Moore, Thomas, Bloomington, Ill., and James O'Donald, Clinton, Ill. Vapor-burner.....	Feb. 7, 1871
126,659	Moore, Thomas, England. Apparatus for raising and lowering weights.....	Oct. 3, 1871
	Moore, Thomas, Boston, Mass. Machine for enameling moldings.....	Nov. 7, 1871
118,547	Moore, Thomas G., Albia, Iowa. Harness saddle-tree. (Antedated Aug. 25, 1871).....	Aug. 29, 1871
121,398	Moore, Thomas H., Alexandria, Va. Steam-boiler furnace draught-regulator.....	Nov. 28, 1871
116,856	Moore, Thomas W., assignor to Elric L. Nichols, New York, N. Y. Folding-cradle.....	July 11, 1871
120,893	Moore, Thomas W., assignor to Francis U. Moore, New York, N. Y. Bedstead-fastening.....	Nov. 14, 1871
112,371	Moore, William N., Neenah, Wis. Cooking-stove.....	Mar. 7, 1871
110,775	Moore, William C., assignor of two-thirds interest to Gilbert Pullen, Washington, D. C. Street-sprinkler.....	Jan. 3, 1871
111,078	Moorhous, Albert, Indianapolis, Ind. Tile-machine.....	Jan. 17, 1871
120,160	Moose, Peter J., and Jonathan Kuhn, Dansville, N. Y. Horse hay-fork.....	Oct. 24, 1871
121,399	Morahan, Bernard, Brooklyn, N. Y. Pepper and spice box. (Antedated Nov. 13, 1871).....	Nov. 23, 1871
111,557	Moran, James, Auburn, N. Y., and Casper D. Wallace, Corry, Pa., assignors to selves and Hiram K. Needham. Harvester.....	Feb. 7, 1871
	Moran, Thomas, et al. (See Nimmo, Archibald, assignor.)	
	Same..... (See Nimmo, Alexander, assignor.)	
116,341	Morand, Augustus, Brooklyn, N. Y. Brick-machine.....	June 27, 1871
111,369	Morandi, Francis, Malden, Mass. Culinary vessel.....	Jan. 31, 1871
114,958	Morange, James K., and Napoleon B., Pittsburgh, Pa. Casting car-wheels.....	May 16, 1871
111,468	More, John, New York, N. Y. Sliding-door.....	Jan. 31, 1871
110,669	Moreau, Eugene, assignor to self, James W. Haggerty, and Samuel Hill, San Francisco, Cal. Sewing-machine for working button-holes.....	Jan. 3, 1871
112,618	Morehead, James M., Brooklyn, N. Y. Pipe-connection.....	Mar. 14, 1871
110,670	Morehouse, Aaron, Hartford, Conn. Tucking-device for sewing-machines.....	Jan. 3, 1871
114,956	Morehouse, Clark, assignor to self and John W. Doughty, Wayland, N. Y. Current-wheel.....	May 16, 1871
	Morehouse, Myron, and Collesier M. Ballard. (See Ballard & Morehouse.)	
122,048	Morehouse, Thomas H. B., Lansing, Mich. Bed-bottom.....	Dec. 19, 1871
111,135	Morehouse, William, Buffalo, N. Y. Chair-clamp for railway-rails.....	Jan. 24, 1871
	Moreland, George D., et al. (See Doan, Wallis & Moreland.)	
121,727	Morey, Nathan D., Saratoga Springs, N. Y. Machine for pressing and finishing leather, skins, &c.....	Dec. 12, 1871
111,370	Morfit, Campbell, Baltimore, Md. Manufacture of superphosphate of lime.....	Jan. 31, 1871
111,235	Morgan, Edward, assignor of two-thirds interest to J. F. McKee and Charles Fair, Washington, D. C. Measuring-attachment for packaged fabrics.....	Jan. 24, 1871
	Morgan, Edward H., and William F. Nolker. (See Nolker & Morgan.)	
120,209	Morgan, Eustis P., Saco, Me., and James H. McMullan, Biddeford, Me. Roving-frame.....	Oct. 24, 1871
4,263	Morgan, George, Brooklyn, N. Y. Machine for cutting stone..... (Reissue).....	Feb. 14, 1871
115,765	Morgan, George C., Chicago, Ill. Railway-rail.....	June 6, 1871
118,258	Same..... Bridge.....	Aug. 22, 1871
119,388	Same..... Rotating drop-pipe.....	Sept. 26, 1871
121,252	Morgan, Henry H., and Albert Gerry, San Francisco, Cal. Car-coupling.....	Nov. 23, 1871
119,042	Morgan, James B., Davenport, Iowa. Dust-pan.....	Sept. 19, 1871
112,833	Morgan, James B., assignor to self and Morris J. Keating, Davenport, Iowa. Sash-holder.....	Mar. 21, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
117,444	Morgan, John, jr., Wheeling, W. Va. Burglar-alarm.....	July 25, 1871
	Morgan, John, jr., and Archie W. Paull. (<i>See</i> Paull & Morgan) .. (Two cases.)	
116,738	Morgan, Thomas, Marquette, Mich. Car-coupling.....	July 4, 1871
119,783	Morgan, Thomas G., Murfreesborough, Tenn. Flour-bolt.....	Oct. 10, 1871
118,965	Moritz, David, Buffalo, N. Y. Jack for replacing cars.....	Sept. 12, 1871
121,801	Same..... Carmansville, New York, N. Y. Painters' trestle.....	Dec. 12, 1871
117,195	Morley, John F., Lansing, Mich. Safety-trace fastener.....	July 18, 1871
118,875	Morrell, James A., assignor to self, James H. Wheatley, L. P. Williams, and George W. Baxter, New York, N. Y. Refining sugars.....	Sept. 12, 1871
116,983	Morrie, Harrie, Rockford, Ill. Roofing compound.....	July 11, 1871
116,076	Morrill, Charles, New York, N. Y. Fastening for meeting-rails of sashes.....	June 20, 1871
110,992	Morrill, Charles, assignor to George H. Bidwell, New York, N. Y. Attaching knobs to their spindles.....	Jan. 17, 1871
121,400	Morrill, Charles E., Deering, Me. Process of manufacturing shoe-binding.....	Nov. 28, 1871
113,189	Morrill, Charles E., Westbrook, Me., John E. Coffin, Portland, Me., and George F. Hall, Westbrook, Me.; said Coffin and Hall assignors to Charles E. Morrill. Machine for stripping and cutting leather.....	Mar. 28, 1871
113,325	Morrill, Frankliu H., Philadelphia, Pa. Machine for winding bobbins.....	April 4, 1871
121,886	Morrill, Levi H., and Elbridge G. P. Smith, Portland, Me. Desk, table, and shelf combined. (Antedated Dec. 2, 1871).....	Dec. 12, 1871
118,966	Morris, Abraham, New York, N. Y. Sofa-bed.....	Sept. 12, 1871
112,949	Morris, Ellis H., Canton, Ohio. Molding-plane.....	Mar. 21, 1871
115,630	Morris, George E., and Charles W. Gregory, Danville, Ill. Railway-rail joint.....	June 6, 1871
116,621	Morris, James A., Greenbush, N. Y. Door-fastener.....	July 4, 1871
117,445	Morris, John E., Baltimore, Md. Spirit-still.....	July 25, 1871
114,461	Morris, John H., Paxton, Ill. Buckle.....	May 2, 1871
113,190	Morris, Joseph R., Houston, Tex. Rotary subsoil-plow.....	Mar. 28, 1871
113,191	Same..... Furnace for producing hydrogen and treating ores.....	Mar. 28, 1871
120,764	Same..... Gas-furnace and forge.....	Nov. 7, 1871
	Morris, Martin. (<i>See</i> Robinson, William S., assignor.)	
116,209	Morris, Matthias K., Louisville, Ky. Washing-machine.....	June 20, 1871
	Morris, Stephen, and Nathan Middleton. (<i>See</i> Middleton & Morris.)	
	Morris, Thomas C. (<i>See</i> Faucitt, William N., assignor.)	
119,238	Morris, Thomas S., and Edwin Rus. (<i>See</i> Batchelor, William, assignor.)	
4,496	Morris, William, Philadelphia, Pa. Apparatus and process for tanning.....	Sept. 26, 1871
	Morris, William H., New York, N. Y., and C. L. Brown, Sing Sing, N. Y., assignors of part interest to Rollin White. Repeating fire-arm..... (Reissue) ..	Aug. 1, 1871
4,398	Morris, William H. H., and William W. Eastman. (<i>See</i> Eastman & Morris.)	
115,503	Morrison, David H., Dayton, Ohio. Iron bridge..... (Reissue) ..	May 23, 1871
	Morrison, Duncan, assignor of one-half interest to Samuel Calderwood and F. F. Hall, Portland, Me. Rock-drill.....	May 30, 1871
115,975	Morrison, Enoch R., New York, N. Y. Machine for felling trees.....	June 13, 1871
121,802	Morrison, George, Palmyra, Wis. Plate for artificial teeth.....	Dec. 12, 1871
114,701	Morrison, George W., New Albany, Ind. Lenticular globe for lamps. (Antedated May 4, 1871).....	May 9, 1871
115,086	Morrison, Hackley T., Lawrenceville, Va. Lifting-jack.....	May 23, 1871
111,864	Morrison, Jacob, assignor to Matilda D. Morrison, Indianapolis, Ind. Portable laundry.....	Feb. 14, 1871
117,915	Morrison, Jacob, assignor to self and Calvin A. Elliott, Indianapolis, Ind. Chair.....	Aug. 8, 1871
116,077	Morrison, James A., Brady's Bend, Pa. Wrench and pipe-tongs.....	June 20, 1871
111,667	Morrison, James B., Saint Louis, Mo. Dental engine.....	Feb. 7, 1871
121,188	Morrison, James D., Richfield, Ill. Gate.....	Nov. 21, 1871
	Morrison, James W., and Henry S. Wood. (<i>See</i> Wood & Morrison.)	
117,801	Morrison, Samuel D., Dennis A., and Joseph B., Fort Madison, Iowa. Plow.....	Aug. 8, 1871
117,196	Morrison, Samuel G., Williamsport, Pa. Composition for roofs, pavements, &c.....	July 18, 1871
114,024	Morrison, Thomas F., assignor to Morrison & Fay, Bryan, Ohio. Furnace for steam-boilers.....	April 25, 1871
113,550	Morrison, William, Carlisle, Pa. Corn-planter.....	April 11, 1871
4,559	Same..... same..... (Reissue) ..	Sept. 19, 1871
	Morrow, Robert T. (<i>See</i> Nelson, John, assignor.)	
	Morse, Benjamin, <i>et al.</i> (<i>See</i> Hancock, John, jr., assignor.)	
111,865	Morse, Charles H., assignor to self and William A. Brown, Boston, Mass. Mechanism for operating punching and eyeleting machines.....	Feb. 14, 1871
111,558	Morse, Edmund A., Rutland, Vt. Tongue for children's carriages.....	Feb. 7, 1871
111,668	Morse, Francis B., assignor to H. D. Smith & Co., Plantsville, Conn. Die for forging, trimming, and shaping spring-clips for carriages.....	Feb. 7, 1871
111,866	Same..... Whiffletree-plate.....	Feb. 14, 1871
112,950	Same..... Keep and brace for fifth-wheels.....	Mar. 21, 1871
113,551	Same..... Carriage-step.....	April 11, 1871
114,025	Same..... Method of making carriage-steps.....	April 25, 1871
114,179	Same..... Wrench.....	April 25, 1871
115,504	Same..... Felly-plate.....	May 30, 1871
115,976	Same..... Die for forging king-bolts.....	June 13, 1871
118,632	Same..... Carriage-step.....	Aug. 29, 1871
121,803	Same..... Die for making carriage-steps.....	Dec. 12, 1871
114,587	Morse, George F., Portland, Me. Railway car and engine truck.....	May 9, 1871
115,343	Same..... Changeable gauge car-truck.....	May 30, 1871
121,119	Morse, George F., New York, N. Y. Ornamenting and dressing glass and metal surfaces, &c.....	Nov. 21, 1871
	Morse, George Frederic, and William Henry Harding. (<i>See</i> Harding & Morse.)	
111,371	Morse, Henry T., assignor to L. Morse & Son, Athol, Mass. Folding-settee.....	Jan. 31, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
117,315	Morse, Henry T., assignor to Laban and Leander B. Morse, Athol, Mass. Fold- ing-settee	July 25, 1871
114,842	Morse, John H., Peoria, Ill. Sash-holder	May 16, 1871
121,253	Same Combined latch and lock. (Antedated Nov. 18, 1871)	Nov. 28, 1871
122,127	Morse, Lewis, Attleborough, Mass. Snap-hook	Dec. 26, 1871
114,588	Morse, Monroe and Charles H., Franklin, Mass. Flock-cutting machine	May 9, 1871
	Morse, Orrin. (See McMaster, Alonzo D., assignor.)	
121,537	Morse, Russell S., East Dixfield, Me. Scissors-grinding attachment for sewing- machines	Dec. 5, 1871
116,342	Morse, Stephen H., North Jay, Me. Paring and chopping machine	June 27, 1871
117,100	Morse, William A., Philadelphia, Pa. Button-hole cutter	July 18, 1871
110,863	Morse, William H., West Newbury, Mass. Carriage-curtain fastener	Jan. 10, 1871
114,027	Morss, Joab, and Franklin B. Abell, Philadelphia, Pa. Adjustable spirit-level ..	April 25, 1871
117,556	Morton, Albert, Salmon Falls, N. H. Spindle for loom-shuttles	Aug. 1, 1871
111,964	Morton, Benjamin, Fertility, Pa. Anti-rattling washer	Feb. 21, 1871
	Morton, Francis T., and Charles H. Drew. (See Wright, Benjamin F., assignor.) ..	
112,064	Morton, John, Thorville Mills, Mich. Fence	Feb. 21, 1871
4,543	Morton, John, assignor to McGowan Brothers Pump and Machine Company, Se- dalia, Mo. Water-tank for railways	Sept. 5, 1871
	(Reissue)	
115,505	Morton, John A., New Orleans, La. Fertilizer-distributor	May 30, 1871
118,966	Morton, Robert, England. Gas-apparatus	Sept. 12, 1871
118,042	Morton, Thomas, New York, N. Y. Device for suspending window-sashes	Aug. 15, 1871
117,557	Moschcowitz, Herman, New York, N. Y. Attachment for sewing-machines	Aug. 1, 1871
111,236	Moschcowitz, Schamu, New York, N. Y. Body-lining for ladies' dresses	Jan. 24, 1871
111,867	Moschcowitz, Schamu Moritz, New York, N. Y. Attachment for sewing- machines	Feb. 14, 1871
114,180	Moseley, Jerome S., Syracuse, N. Y. Scroll-sawing machine	April 25, 1871
114,702	Moseley, Thomas W. H., Hyde Park, Mass. Steam-generator	May 9, 1871
5,117	Same Bell-tower	July 11, 1871
118,382	Same Construction of buildings	Aug. 22, 1871
120,765	Moseley, William F., Brooklyn, N. Y. Surface-sized paper for paper-collars, &c ..	Nov. 7, 1871
121,481	Mosely, Daniel, Ozark, Ark. Cotton-chopper and grain-cultivator	Mar. 7, 1871
	Mosely, Jirah B. (See Motley, George, assignor.)	
114,843	Moser, Benjamin, Waltham, Mass. Curtain-fixture	May 16, 1871
116,343	Same same	June 27, 1871
	Moses, Lewis, Bernard, and Gustave. (See Fisher, Charles F., assignor.) ..	
	Moses, William J. (See Palmer & Storke, assignors.)	
119,389	Mosher, David G., Mosherville, Mich. Insect-destroyer	Sept. 26, 1871
120,660	Mosman, David F., assignor to self and Leonard Atwood, Chelsea, Mass. ..	
	Lubricator	Nov. 7, 1871
115,631	Moss, Alfred A., Philadelphia, Pa. Sole of boots and shoes	June 6, 1871
	Moss, Charles Le R. (See Hite, Joseph C., assignor.)	
	Moss, John E., and John M. Williams. (See Porter, Archibald A., assignor.) ..	
116,078	Moss, John L., and Edward W. Johnson, Columbus, Miss. Revolving fire-arm ..	June 20, 1871
112,065	Moss, Lewis H., Browningsville, Ky. Tobacco, hay, and cotton press	Feb. 21, 1871
120,992	Moss, Rees, assignor to self and Silas H. Emery, Philadelphia, Pa. Stove-grate. (Antedated Nov. 3, 1871)	Nov. 14, 1871
112,066	Mossholder, Joseph C., Lebanon, Oreg. Rotary steam-engine	Feb. 21, 1871
4,895	Mothershead, Alvin M., Indianapolis, Ind. Plate of a cooking stove. (Design) ..	May 9, 1871
122,049	Motley, Francis, assignor through mesne assignments to James R. Teal, Phoenixville, Pa. Steam-engine	Dec. 19, 1871
113,079	Motley, George, assignor to self and Jirah B. Mosely, Rochester, N. Y. Making flour	Mar. 23, 1871
115,883	Mott, Gershom, Big Run, Ohio. Gate	June 13, 1871
119,390	Mott, Harcourt, Troy, N. Y. Office-desk	Sept. 26, 1871
111,372	Mott, James T., Postville, Iowa. Seeder and cultivator	Jan. 31, 1871
	Mott, James S. (See Budd, Bern L., assignor)	
	(Two cases.)	
	Mott, Jordan L. (See Demarest, John, assignor)	
	(Three cases.)	
	Same (See Burrows, William H., assignor)	
	(Two cases.) (Design.)	
	Same (See Scorer & Ham, assignors)	
	(Four cases.) (Design.)	
116,934	Mott, Thomas H., New York, N. Y. Argand-lamp burner	July 11, 1871
114,960	Moule, Henry, and James Banner, assignors to Earth-Closet Company, England. Earth-closet	May 16, 1871
116,079	Moule, John J., Huntington, N. Y. Center-board for vessels	June 20, 1871
121,652	Moulton, Charles S., assignor through mesne assignments of one-half interest to Conrad Brotchi, Des Moines, Iowa. Picture-frame hanger	Dec. 5, 1871
116,210	Moulton, Eri Sewell, Chelsea, Mass. Pipe-cutter. (Antedated June 9, 1871) ..	June 20, 1871
	Moulton, Eri S., and William Chicken. (See Chicken & Moulton.)	
115,884	Moulton, Fortyce M., Ferrisburgh, Vt. Animal-poke	June 13, 1871
119,636	Moulton, Joel, Boston, Mass. Machine for covering wringer-rolls	Oct. 3, 1871
	Moulton, John B. (See Dodd, Lewis Z., assignor.)	
113,684	Moulton, John Q., Lynn, Mass. Heel-trimming machine	April 11, 1871
110,776	Mount, Joseph, Monroe Township, N. J. Car-coupling	Jan. 3, 1871
	Mouser, Edward L. (See McQuaid, Andrew C., assignor.)	
113,192	Moussard, Xavier, France. Producing gas from hydrocarbons	Mar. 28, 1871
	Moyer, Daniel, and Benjamin D. Brown. (See Brown & Moyer.)	
	Moyle, James W., and George Stevens. (See Stevens & Moyle.)	
113,080	Moyle, Richard M., New York, N. Y. Catarrhal douche	Mar. 28, 1871
121,431	Mozart, Don J., New York, N. Y. Watch-escapement	Nov. 28, 1871
	Mudge, Carson. (See Myers, Elisha B., assignor.)	
	Mudge, Charles F. (See Wilson, Charles, assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,887	Mudgett, Jacob H., Lynn, Mass. Skiving-machine	Dec. 12, 1871
118,043	Mueller, Charles F., Hamilton, Canada. Process for ornamenting sewing-machines, &c	Aug. 15, 1871
113,326	Mueller, David, assignor to self and Franz Wagner, New York, N. Y. Machine for corking bottles	April 4, 1871
121,402	Muhl, A., San Antonio, Tex. Apparatus for the manufacture of ice	Nov. 28, 1871
121,888	Muhl, Andrew, Waco, Tex. Ice-machine	Dec. 12, 1871
	Muir, Allen and Henry. (See Burr, Theodore, assignor.)	
116,080	Muir, William, and Pierce Butler, Carbondale, Pa. Grate-bar	June 20, 1871
120,161	Muir, William Kerr, Hamilton, Canada. Turn-table and railway-track for changing gauge of cars	Oct. 24, 1871
117,802	Mulford, David H., Saratoga Springs, N. Y. Device for connecting blocks of wood-pavement	Aug. 8, 1871
118,471	Same..... Wooden pavement	Aug. 29, 1871
117,446	Mulholland, Henry, assignor to self and John Mulholland, Union Mills, Pa. Churn-dasher	July 25, 1871
120,162	Mullen, Robert J., assignor to the Providence Tool Company, Providence, R. I. Punch	Oct. 24, 1871
116,211	Muller, Adolph, San Francisco, Cal. Dyeing and coloring furs	June 20, 1871
120,210	Muller, Adolph, Brooklyn, N. Y. Manufacture of wooden pipes from veneers	Oct. 24, 1871
118,259	Muller, Charles, Albany, N. Y. Tobacco-strippers	Aug. 22, 1871
120,311	Muller, Hermann, assignor to Francis Telbinger, Austria. Stop-cock	Oct. 24, 1871
119,167	Muller, Jacob, Newark, N. J. Composition for coating the outside of buildings	Sept. 19, 1871
4,797	Muller, Nicholas, New York, N. Y. Clock-case (Design)	April 11, 1871
110,777	Muller, Teile H., assignor to Joseph Reckendorfer, New York, N. Y. Machine for cutting the ends of wooden pencils	Jan. 3, 1871
	Muller, Teile H., and Joseph Reckendorfer. (See Reckendorfer & Muller.) (Design.)	
	Mullin, Elwood B., and John Antrum. (See Antrum & Mullin.)	
116,081	Mulloony, John F., Pittsburgh, Pa. Clothes-drier	June 20, 1871
112,166	Mulock, Daniel, Mount Hope, N. Y. Harvester	Feb. 28, 1871
112,167	Same..... Wheel for vehicles	Feb. 28, 1871
113,786	Mulock, Daniel Charles, and Henry James King. (See King & Mulock.)	
	Mumler, William H., Boston, Mass. Liquid receptacle and funnel	April 18, 1871
	Mundell, David and Alfred. (See Pratt, Elijah, assignor.)	
	Munger, Joseph, and Miles K. Lewis. (See Lewis & Munger.)	
	Munger, Lyman F., and James Sargent. (See Sargent & Munger.)	
	Munger, Lyman F., Rochester, N. Y. Lock (Extension)	June 30, 1871
4,596	Same..... same (Disclaimer filed)	July 5, 1871
4,674	Same..... Permutation-lock (Reissue)	Oct. 17, 1871
	Same..... Lock (Reissue)	Dec. 12, 1871
111,136	Munger, Martin L., and Corodon D. W. Gibson, Grand Blanc, Mich. Machine for upsetting iron	Jan. 24, 1871
113,909	Munger, Wallace T., assignor to P. and F. Corbin, New Britain, Conn. Reversible-knob latch	April 18, 1871
113,910	Same..... Door-latch	April 18, 1871
116,082	Same..... Door-bell	June 20, 1871
112,270	Munro, George, Philadelphia, Pa. Apparatus for using electricity as a remedial agent	Feb. 28, 1871
113,911	Munro, George F., sr., Albany, Mo. Apparatus for vapor baths	April 18, 1871
	Munro, Nathan. (See Wolcott, Henry E., assignor.)	
116,344	Munroe, Charles E., Cambridge, Mass. Refrigerator	June 27, 1871
	Munson, Albert L. (See Kolin, Morris, assignor) (Two cases.)	
110,778	Munson, David, Indianapolis, Ind. Lightning-rod	Jan. 3, 1871
119,043	Same..... same	Sept. 19, 1871
5,405	Munson, George, and Purmort and Charles H. Bradford, assignors to Sargent & Co., New Haven, Conn. Door handle (Design)	Dec. 5, 1871
111,669	Munson, George C., Empire City, Colo. Ter. Feeding quicksilver to stamps and amalgamators	Feb. 7, 1871
115,632	Munzinger, Peter, Philadelphia, Pa. Center-seal for gas-works	June 6, 1871
118,472	Same..... Apparatus for exhausting and purifying gas	Aug. 29, 1871
119,941	Mur, Joseph M., New York, N. Y. Tobacco-pipe	Oct. 17, 1871
113,442	Mureh, William H., Portland, Me. Culinary vessel	April 4, 1871
121,653	Murdoch, Samuel C., Pittsburgh, Pa. Machine for rolling harrow-teeth	Dec. 5, 1871
122,274	Murdoch, Samuel C., and Thomas H. Borland, Pittsburgh, Pa. Belt-pump	Dec. 26, 1871
116,083	Murdoch, John, South Carver, Mass. Apparatus for steaming, filtering, &c	June 20, 1871
120,894	Same..... Agricultural boiler	Nov. 14, 1871
117,558	Murfey, Eliza D., New York, N. Y. Bearing and packing. (Antedated July 21, 1871)	Aug. 1, 1871
121,804	Same..... Journal-bearing	Dec. 12, 1871
121,805	Same..... Material for packing and bearings	Dec. 12, 1871
121,806	Same..... Packing or bearing for journals, &c	Dec. 12, 1871
116,475	Murfey, Eliza D., assignor to the Manhattan Packing Manufacturing Company, New York, N. Y. Bearing for railway car axles	June 27, 1871
	Murphey, James, and Augustus J. Howell. (See Howell & Murphey.)	
4,556	Murphy, Albert L., Philadelphia, Pa. Railing for cemetery lots (Design)	Jan. 3, 1871
114,181	Murphy, Daniel, Richmond, Va. Stove-pipe cleaner	April 25, 1871
111,766	Murphy, Daniel, assignor to self and Timothy C. Murphy, Dubuque, Iowa. Riddle for thrashing-machines	Feb. 14, 1871
111,670	Murphy, Hugh B., Allegheny City, Pa. Meat-cutter	Feb. 7, 1871
	Murphy, James, and Amyntas J. Howell. (See Howell & Murphy.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,619	Murphy, Jeremiah, Boston, Mass. Burglar-alarm drawer.....	Mar. 14, 1871
117,447	Murphy, John, New York, N. Y. Manufacture of vulcanized rubber and combination hose and tubing.....	July 25, 1871
119,391	Same..... Billiard-cushion of rubber and gutta-percha.....	Sept. 26, 1871
116,857	Murphy, John M., Olympia, Wash. Ter. Printers' galley-rest.....	July 11, 1871
113,685	Murphy, John W., Philadelphia, Pa. Lubricating pivots for turn-tables.....	April 11, 1871
114,844	Murphy, Matthew, Charlotte, N. C. Globe-valve. (Antedated May 15, 1871).....	May 16, 1871
116,739	Murphy, Michael D., Watkins, N. Y. Griddle-lifter. (Antedated June 28, 1871).....	July 4, 1871
111,373	Murray, George, jr., assignor to self, George Murray, sr., and Henry E. Snow, Cambridgeport, Mass. Valve.....	Jan. 31, 1871
114,462	Murray, Jessie H., Kirkwood, N. Y. Washer and wringer combined.....	May 2, 1871
	Murray, John. (See Mcody, Nelson B., assignor.)	
113,327	Murray, Peter H., Portsmouth, Ohio. Mode of preparing paper for photographic purposes.....	April 4, 1871
114,028	Murray, Samuel W., and Benjamin P. Lamason, Milton, Pa. King-bolt for railway-car trucks.....	April 25, 1871
113,081	Murry, John, Silveyville, Cal. Gang-plow.....	Mar. 28, 1871
114,323	Musgrove, Joseph, Newark, N. J. Sheet-metal match-safe.....	May 2, 1871
118,633	Musket, Robert F. and Edward M., assignors to selves and Zoloth S. Durfee, England. Manufacture of cast-steel.....	Aug. 29, 1871
111,767	Musser, James W., and Ralph Carkhuff, Lewisburgh, Pa. Car-coupling.....	Feb. 14, 1871
120,766	Mutersbaugh, Abraham, Lewinsville, Va. Bee-hive.....	Nov. 7, 1871
121,060	Mutimer, Frederick, Rockford, Ill. Screw-bolt.....	Nov. 21, 1871
	Muzzey, David, and Milton Sessions. (See Sessions & Muzzey.)	
116,985	Muzzy, Franklin, Bangor, Me. Shingle-machine.....	July 11, 1871
	Myer, Henry. (See Pairan, Ferdinand, assignor.)	
115,506	Myer, Henry B., Philadelphia, Pa. Gas-burner.....	May 30, 1871
117,803	Myers, Anthony H., Hermon, Ill. Cultivator.....	Aug. 8, 1871
	Myers, Benjamin R. (See Ervien, John A., assignor.)	
122,128	Myers, Daniel, Baltimore, Md. Machine for pitching barrels.....	Dec. 26, 1871
116,858	Myers, Daniel F., New York, N. Y. Watch-chain fastening.....	July 11, 1871
122,188	Myers, Edmund B., York, Pa. Releasing-device for stables.....	Dec. 26, 1871
120,993	Myers, Edward, and Samuel R. Smith, assignors to Lane & Bodley, Cincinnati, Ohio. Mortising-machine.....	Nov. 14, 1871
121,649	Myers, Edwin James, Onawa, Iowa. Corn-planter.....	Dec. 5, 1871
118,876	Myers, Elisha B., assignor to self and Carson Mudge, Handsborough, Miss. Soda-fountain.....	Sept. 12, 1871
116,986	Myers, Ephraim, Creagertown, Md. Elastic chain-link. (Antedated July 4, 1871).....	July 11, 1871
112,482	Myers, Frederick, New York, N. Y. Sad and fluting iron.....	Mar. 7, 1871
4,362	Same..... same..... (Reissue).....	May 2, 1871
	Same..... Combined sad and fluting iron.....	Oct. 3, 1871
115,977	Myers, Henry, jr., McLean, Ill. Cut-off for water-conductors.....	June 13, 1871
113,193	Myers, Isaac Lamborn, Ferguson Township, Pa. Buggy-brake.....	Mar. 28, 1871
111,137	Myers, Isaac W., San Francisco, Cal. Boot-stretchers.....	Jan. 24, 1871
	Myers, John, and Robert G. Eunson, assignors of sectional interest to Jacob Lagowitz, of Newark, N. J. Machine for sawing thin boards, &c. (Disclaimer filed).....	May 20, 1871
	Myers, John, and Robert G. Eunson, assignors of sectional interest to Eben Peck and Gilbert J. Bogert, of New York City. Machine for sawing thin boards, &c..... (Disclaimer filed).....	May 20, 1871
	Myers, John, and Robert G. Eunson, assignors of sectional interest to Benjamin R. Smith and J. Campbell Harris. Machine for sawing thin boards, &c. (Disclaimer filed).....	Dec. 8, 1871
122,129	Myers, John W., Lyons, Iowa. Feed-mill.....	Dec. 26, 1871
112,731	Myers, Lawrence, Philadelphia, Pa. Hose-tunnel for city railways.....	Mar. 14, 1871
	Myers, Lewis B. and Henry A., Elmore, Ohio. Seeding-machine. (Extension).....	Feb. 28, 1871
	Myers, Lewis M., et al. (See Campbell, James A., assignor.)	
113,443	Myers, Oliver D., Doylestown, Pa. Flour-sifter.....	April 4, 1871
112,271	Myers, Richard W., Glen Gardner Station, N. J. Cradle.....	Feb. 28, 1871
111,469	Myers, Samuel C., and James McCauley, McAllisterville, Pa. Combined band-cutter and feeder for thrashing-machines.....	Jan. 31, 1871
118,634	Same..... Attachment of band-cutter and thrashing-machine.....	Aug. 29, 1871
117,448	Myers, Thomas J., Philadelphia, Pa. Boiler for heating buildings.....	July 25, 1871
112,834	Myers, Valentine, assignor to self and John M. Phelps, Cogan Station, Pa. Wagon-seat.....	Mar. 21, 1871
113,552	Myers, William A., York, Pa. Horse hay-rake.....	April 11, 1871
114,463	Same..... Grain separating and cleaning attachment to thrashing-machines.....	May 2, 1871
113,082	Mygatt, John T., and John Downing, Binghamton, N. Y. Burglar-alarm. (Antedated March 15, 1871).....	Mar. 28, 1871
118,260	Myrick, Elijah, Ayer, Mass. Bearing-plate for railway-rails.....	Aug. 22, 1871
	Nagle, Charles Frederick. (See Hill, George Jay, assignor.)	
120,312	Nagle, Henry, assignor of one-half interest to Benjamin Smeltz, Carlisle, Pa. Shifting-seat for vehicles.....	Oct. 24, 1871
111,138	Nagler, Franz L., Irving Township, Mich. Hay-rack.....	Jan. 24, 1871
	Nahnmacher, Charles F., administrator. (See Evert, Henry.)	
122,189	Nalley, Franklin, Battle Ground, Ind. Car-coupling.....	Dec. 26, 1871
120,527	Napier, Robert David, England. Brake for machinery.....	Oct. 31, 1871
118,635	Nash, Francis M., assignor to self and William H. Stevens, Stockton, Minn. Stump-extractor.....	Aug. 29, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,229	Nash, George W., assignor to self and George Jamison, Columbus, Ohio. Corpse-preserver	May 23, 1871
113,553	Nash, Nathan E., Westerly, R. I. Steam-engine	April 11, 1871
115,087	Nash, Stephen B., assignor to Austin E. Messenger, Buffalo, N. Y. Extension-table slide	May 23, 1871
	Nashold, Elias, <i>et al.</i> (See Conlon, Frederick, assignor.)	
	Nass, Henry, <i>et al.</i> (See Wolff, David Ludwig, assignor.)	
	Nation, David H., and Ezekiel C. Little. (See Little & Nation.)	
	Nation, John. (See Stephens, George F., assignor.)	
	National Cattle-Car Company. (See Swearingen, Lee, assignor) (Reissue.)	
	Same.....(See Shafer, John B., assignor).....(Reissue.)	
	Same.....(See Rank, Amos, assignor).....(Reissue.)	
	Same.....(See Rank, King & Sharp, assignors).....(Reissue.)	
	Same.....(See Kendall, John S., assignor).....(Reissue.)	
	National Manufacturing Company. (See Brooks, Franklin W., assignor.)	
	National Meter Company. (See Read, H. F., assignor)....(Two cases.) (Reissue.)	
	National Rubber Company. (See Bourn, Augustus O., assignor.) (Four cases.) (Design.)	
	Same.....(See Williams, Isaac F., assignor).....(Two cases.) (Design.)	
	National Tube Works Company. (See Matheson, George, assignor.)	
	National Water-Wheel Company. (See Case, Joel T., assignor)....(Two cases.)	
	Same.....(See Case, Joel T., assignor).....(Two cases.) (Reissue.)	
	National Wood Manufacturing Company. (See Grocock & Brassington, assignors.)	
120,085	Nauen, Otto, New York, N. Y. Sewing-machine case	Oct. 17, 1871
111,374	Nave, Andrew Jackson, Columbus, Tex. Washing-machine	Jan. 31, 1871
	Naylor, George J. (See Peirce, Charles R., assignor.)	
	Same.....(See Walton, William E., assignor.)	
115,885	Neal, David S., Lynn, Mass. Knife-scourer	June 13, 1871
118,636	Neal, James W., Big Lick, Va. Straw-cutter	Aug. 29, 1871
	Neale, Roswell A., <i>et al.</i> (See Fuller, George H., assignor.)	
117,336	Neall, Alfred C., Philadelphia, Pa. Pavement-washer	July 25, 1871
117,101	Necker, Carl, Prussia. Sewing-machine	July 18, 1871
110,671	Neeb, Peter, assignor through mesue assignments to Margaret Neeb, Buffalo, N. Y. Saw-table	Jan. 3, 1871
110,779	Needham, Chandler, Worcester, Mass. Casting car-wheels	Jan. 3, 1871
112,951	Needham, Elias P., New York, N. Y. Pencil-sharpener	Mar. 21, 1871
117,666	Same.....Tremolo-attachment for reed-instruments	Aug. 1, 1871
	Needham, Hiram K. (See Moran & Wallace, assignors.)	
	Needham, Hugh J., and Alfred Greenaway. (See Greenaway & Needham.)	
	Needham, John, jr. (See Brumby, Charles, assignor.)	
119,044	Needham, Orwell H., New York, N. Y. Combined breast-pump and nursing-bottle	Sept. 19, 1871
111,559	Neefus, Peter W., New York, N. Y. Mat	Feb. 7, 1871
112,168	Same.....Stair and floor plate	Feb. 28, 1871
115,344	Same.....Drainer for tumblers and dishes	May 30, 1871
115,345	Same.....Door-mat	May 30, 1871
117,317	Neely, Benjamin F., Yorktown, Ind. Fender for plows	July 25, 1871
4,955	Nef, John U., Housatonic, Mass. Bed-quilt	May 30, 1871
113,912	Neff, Frank M., and John E. Scruggs, Monroe, Iowa. Type setting and distributing machine	April 18, 1871
119,528	Negley, Peter L., Castleton, Ind. Hay and cotton press	Oct. 3, 1871
119,942	Neil, James R., Brooklyn, N. Y. Condenser or cooler for alcoholic and other liquids	Oct. 17, 1871
119,943	Same.....Apparatus for rectifying alcoholic spirits	Oct. 17, 1871
5,188	Neil, John, assignor to Bigelow Carpet Company, Clinton, Mass. Carpet. (Design)	Aug. 8, 1871
5,189	Same.....Carpet.....(Design).....(Design)	Aug. 8, 1871
116,622	Neil, William T., Greensborough, Pa. Hay elevator and carrier	July 4, 1871
114,464	Neill, Edward Henry, assignor to self and Emlen Painter, San Francisco, Cal. Washing-fluid	May 2, 1871
	Neill, Michael. (See Norris, Daniel W., assignor.)	
117,197	Neill, Thomas B., Philadelphia, Pa. Washing-machine. (Antedated July 5, 1871)	July 18, 1871
114,845	Nellis, James, Ypsilanti, Mich. Whip-socket	May 16, 1871
115,346	Nellis, James, assignor to self and Sylvester W. Beach, Ypsilanti, Mich. Breast-collar for horses	May 30, 1871
118,473	Nelsen, Hermon, Jerome, N. Y. Padlock. (Antedated Aug. 23, 1871)	Aug. 29, 1871
118,383	Nelson, Alexander O., Boston, Mass. Thill-coupling	Aug. 22, 1871
111,139	Nelson, Franklin, assignor to self and Joseph Maseth, Wyandotte, Mich. Corn-sheller	Jan. 24, 1871
120,454	Nelson, James H., assignor to self and Byron K. Houghton, Little Falls, N. Y. Machine for wiring blinds	Oct. 31, 1871
121,189	Nelson, John, assignor to self and Robert T. Morrow, Oswego, N. Y. Tuxey-iron	Nov. 21, 1871
118,637	Nelson, John K., Mechanicstown, Md. Washing-machine	Aug. 29, 1871
	Nelson, J. P., jr. (See Judson, William B., assignor.)	
121,120	Nelson, Lycurgus, Smyrna, Tenn. Rock-drilling apparatus	Nov. 21, 1871
	Nelson, Oscar F. (See Boyden, Pardon, assignor.)	
114,182	Nelson, Richard L., Orange Court-House, Va. Corn-harvester	April 25, 1871
114,183	Same.....Machine for boring and mortising	April 25, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,978	Nelson, Richard L., Orange Court-House, Va. Corn-harvester	June 13, 1871
4,692	Nelson, William, Anderson, Ind. Window-fastener..... (Design) ..	Feb. 23, 1871
115,766	Nelson, William P., Saint Louis, Mo. Reversible-window sash	June 6, 1871
	Nelson, William P., <i>et al.</i> (See Blundell, William A., assignor.) ..	
	Nelson, Wolfred David Emelius, and Alfred Holme Balch. (See Balch & Nelson)	
 (Two cases.)	
113,194	Nenninger, Robert, Newark, N. J. Breech-loading fire-arm	Mar. 23, 1871
112,067	Nenninger, Robert, and Frederick Brauer, Newark, N. J. Curtain.....	Feb. 21, 1871
112,068	Nes, Charles M., York, Pa. Manufacture of silicon steel	Feb. 21, 1871
121,889	Same..... Manufacture of steel in crucibles	Dec. 12, 1871
113,686	Nesbitt, Moses T., Colora, Md. Machine for cleaning grain	April 11, 1871
	Nettleton, Horace A., <i>et al.</i> (See Jeralds, Nettleton & Lawton.) ..	
113,195	Nettleton, John F., New Haven, Conn. Skirt-board	Mar. 23, 1871
	Nettleton, Wilford H., Bristol, Conn., Charles Raymond, Guelph, Canada, and Anson Hatch, New Haven, Conn. Machine for turning pillars for clock-movements	
 (Extension)	
120,661	Neuert, Jacob, Sandusky, Ohio. Steam-engine	Nov. 16, 1871
119,392	Nenhansen, August, Wheeling, W. Va. Manufacture of candy whistles.....	Nov. 7, 1871
117,804	Newman, John J., Middletown, Ohio. Ice-elevator	Sept. 26, 1871
	Neumann, Raphael, & Co. (See Steinmetz, Bernard, assignor)	Aug. 8, 1871
 (Design.)	
121,890	Nevenger, George, assignor to Harvey J. Mitchell, Philadelphia, Pa. Out-haul band for booms	Dec. 12, 1871
114,324	Nevens, George H., assignor to self and R. N. Caughell, Livermore, Cal. Sand-cap for hubs of vehicles	May 2, 1871
114,465	Neville, John, Brooklyn, N. Y. Puddling-furnace.....	May 2, 1871
111,560	Nevin, David, Georgetown, Colo. Floor-clamp	Feb. 7, 1871
119,637	Nevius, John H., Williamsburgh, N. Y. Bronzing-machine. (Antedated Sept. 18, 1871)	Oct. 3, 1871
112,069	Nevins, William, Titusville, Pa. Apparatus for steaming oil-wells	Feb. 21, 1871
113,328	New, Tobias, Brooklyn, N. Y. Water-proof cellar	April 4, 1871
113,787	Same..... New York, N. Y. Water-proof floor	April 18, 1871
	Same..... (See Burnham, Manly A., assignor.) ..	
118,384	Newberry, Elizur, Titusville, Pa. Topical heater for oil-wells	Aug. 22, 1871
120,313	Newbery, Robert W., New York, N. Y. Burglar-alarm.....	Oct. 24, 1871
112,620	Newbro, Solomon D., Lansing, Mich. Earth-closet	Mar. 14, 1871
116,740	Newbrough, John B., New York, N. Y. Elevated railway.....	July 4, 1871
121,538	Same..... same.....	Dec. 5, 1871
121,539	Same..... Car for elevated railways	Dec. 5, 1871
4,901	Newby, Henry, Cincinnati, Ohio. Thill-coupling..... (Design) ..	May 9, 1871
	Same..... same..... (Design) ..	Oct. 3, 1871
	Newcomb, George L., <i>et al.</i> (See Barnstead, James T., assignor)	
 (Reissue.)	
	Newcomb, George L., and James Perkins. (See Perkins & Newcomb.) ..	
116,212	Newcomb, Wilson, Baltimore, Md. Tackle-hook	June 20, 1871
120,767	Same..... Pump-piston	Nov. 7, 1871
	Newcomen, Charles M., <i>et al.</i> (See Jones, Howson & Giers, assignors.) ..	
114,589	Newcomer, Emanuel, Columbia, Pa. Chopping-machine	May 9, 1871
	Newell, Alfred H., and Alfred B. Ashman. (See Ashman & Newell.) ..	
112,483	Newell, Augustus, Chicago, Ill. Reed for organs and melodeons	Mar. 7, 1871
114,703	Newell, Joseph N., Adrian, Mich. Wrench. (Antedated April 29, 1871) ..	May 9, 1871
118,044	Newell, William H., Hudson City, N. J. Billiard-marker	Aug. 15, 1871
	New England Butt Company. (See McCahey & Salisbury, assignors.) ..	
	New Haven Steam-Heating Company. (See Hubbard, Calvin L., assignor.) ..	
 (Design.)	
	New Haven Wheel Company. (See Beach, William H., assignor.) ..	
	Newkirk, Charles. (See Gregg, William, assignor.) ..	
121,654	Newland, Vincent Campbell, Sparta, Wis. Gate	Dec. 5, 1871
113,554	Newlove, Matthew, assignor to self and George Giebrick, Burlington, Iowa. Weather-board gauge	April 11, 1871
118,385	Newman, Ambrose S., Plymouth, Ill. Spring-seat for wagons	Aug. 22, 1871
113,196	Newman, Ernst B., assignor to Newman Erb, Saint Louis, Mo. Molded saddle-tree and composition for the same	Mar. 23, 1871
	Newman, James. (See Hancock, Leonard, assignor.) ..	
117,198	Newman, Thomas, New Orleans, La. Railway-switch	July 18, 1871
	New Orleans Sanitary and Fertilizing Company. (See Hamilton, William B., assignor.) ..	
	Newton, Alexander S., Brandon, Vt. Machine for turning wooden boxes. (Extension)	Nov. 16, 1871
117,916	Newton, Charles A., Providence, R. I. Button or stud.....	Aug. 8, 1871
118,261	Newton, Dudley, Newport, R. I. Curb-roof	Aug. 22, 1871
121,295	Newton, Earl C., Batavia, Ill. Carriage	Nov. 23, 1871
119,093	Newton, Edwin W., Franklin Grove, Ill. Submarine-telegraph cable.....	Sept. 19, 1871
114,325	Newton, Eliakim P., Clintonville, Pa. Roofing-composition	May 2, 1871
115,633	Newton, Hial H., Cleveland, Ohio. Tidy-pin	June 6, 1871
111,671	Newton, Jason, Marengo Township, Mich. Animal-hoisting apparatus.....	Feb. 7, 1871
121,956	Newton, Jason, assignor of two-thirds interest to Henry and Charles B. Moore, Marengo, Mich. Mode of securing railway-rails to iron ties	Dec. 19, 1871
116,623	Newton, Jonah, New York, N. Y. Framing-joint	July 4, 1871
113,083	Newton, Jotham, Providence, R. I. Composition fuel.....	Mar. 23, 1871
118,968	Newton, Robert L., Warren, Ill. Ribbon and velvet case.....	Sept. 12, 1871
	Newton, William Harrison. (See Francis, Samuel W., assignor.) ..	
110,780	Newton, William Harrison, Newport, R. I. Car-starter	Jan. 3, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,070	Newton, William Harrison, assignor to self and Samuel W. Francis, Newport, R. I. Bottle-cork	Feb. 21, 1871
	New York Metal and Chemical Manufacturing Company. (<i>See Ott, Adolph, assignor.</i>)	
4,798	New York Rubber Company. (<i>See Bird, James R., assignor.</i>)	April 11, 1871
	Ney, Elemir J., assignor to Robert Beattie & Sons, Dracut, Mass. Carpet-pattern	
4,897	Ney, Elemir J., assignor to Pine Valley Company, Dracut, Mass. Carpet-pattern	May 9, 1871
4,898	Same..... Carpet-pattern	
4,896	Ney, Elemir J., assignor to Hartford Carpet Company, Dracut, Mass. Carpet-pattern	May 9, 1871
4,928	Same..... Carpet-pattern	
4,929	Same..... same	May 23, 1871
4,994	Same..... same	
4,995	Same..... same	June 13, 1871
4,996	Same..... same	
4,997	Same..... same	June 13, 1871
4,998	Same..... same	
4,999	Same..... same	June 13, 1871
5,000	Same..... same	
5,001	Same..... same	June 13, 1871
5,002	Same..... same	
5,003	Same..... same	June 13, 1871
5,037	Same..... Carpet	
5,078	Ney, Elemir J., assignor to Hartford Carpet Company, New York, N. Y. Carpet-pattern	July 4, 1871
5,079	Same..... Carpet-pattern	
5,080	Same..... same	July 4, 1871
5,081	Same..... same	
5,082	Same..... same	July 4, 1871
5,083	Same..... same	
5,084	Same..... same	July 4, 1871
5,085	Same..... same	
116,084	Neynaber, Adolphus F. W., Philadelphia, Pa. Safety-valve. (Antedated June 17, 1871)	June 20, 1871
112,169	Nichols, John H., Sumter, S. C. Combined cotton-planter and guano-distributor	Feb. 28, 1871
117,199	Nichols, Byron W., Cossackie, N. Y. Welding steel	July 18, 1871
119,875	Nichols, Charles M., East Greenwich, R. I. Divider	Oct. 10, 1871
120,163	Nichols, Edgar G., Beaufort, S. C. Hat-ventilator	Oct. 24, 1871
	Nichols, Effingham H. (<i>See Hogel, Hascal A., assignor.</i>)	
	Nichols, Elric L. (<i>See Moore, Thomas W., assignor.</i>)	
113,329	Nichols, George H., Richmond, Va. Fire-escape	April 4, 1871
119,638	Nichols, Gorton W., Chicago, Ill. Apparatus for extinguishing fires	Oct. 3, 1871
113,197	Nichols, James R., Boston, Mass. Hot-air furnace	Mar. 28, 1871
	Nichols, James R., & Co. (<i>See Clapp, Albion R., assignor.</i>)	
117,102	Nichols, Philip, Troy, N. Y. Washing-machine	July 18, 1871
117,103	Same..... Arm-revolving shelf	July 18, 1871
	Nichols, Philip, and Alvah Traver. (<i>See Traver & Nichols.</i>)	
119,168	Nichols, Silas C., assignor of one-half interest to Charles N. Tyler, Buffalo, N. Y. Fur-box	Sept. 19, 1871
114,590	Nichols, Thomas, Vicksburgh, Miss. Stop for carpenters' plows	May 9, 1871
117,449	Nichols, Willard A., Mattawamkeag, Me. Railway-tie	July 25, 1871
115,507	Nichols, William, Centralia, Ill. Car-coupling	May 30, 1871
121,403	Nichols, William A., Zionville, Ind. Wagon	Nov. 28, 1871
114,961	Nichols, William B., assignor to self and T. B. Carpenter, Seymour, Conn. Flour-sifter	May 16, 1871
116,085	Nichols, William H., assignor of one-half interest to Robert H. Hall, East Hampton, Mass. Sleigh-bell	June 20, 1871
112,835	Nichols, William T., Chicago, Ill. Road-scraper	Mar. 21, 1871
121,891	Nicholson, Ezra, assignor of two-thirds interest to Charles B. Stilwell and John J. Clause, Cleveland, Ohio. Steam-engine	Dec. 12, 1871
112,836	Nicholson, Henry C., Mount Washington, Ohio. Telegraph-apparatus	Mar. 21, 1871
121,463	Nicholson, Jesse, Monticello, Ind. Hoisting-apparatus	Dec. 5, 1871
121,464	Same..... Detachable draught-hook	Dec. 5, 1871
114,029	Nicholson, Zebedee, Haddonfield, N. J. Wire-fence	April 25, 1871
113,913	Nick, Henry, France. Sheave and pulley-block. (Antedated April 8, 1871)	April 18, 1871
114,962	Nickerson, Hiram B., Boston, Mass. File. (Antedated May 6, 1871)	May 16, 1871
116,859	Same..... Liquid-meter	July 11, 1871
	Same..... (<i>See Moore, Charles E., assignor.</i>)	
112,170	Nickerson, Powell F., Smyrna, Del. Steam-engine	Feb. 23, 1871
121,061	Nicola, Peter, Massillon, Ohio. Harvester	Nov. 21, 1871
113,084	Nicolle, Philip, Lindsay, Canada. Bee-hive	Mar. 23, 1871
115,088	Niles, Peter H., Boston, Mass. Tub, pail, &c. (Antedated May 9, 1871)	May 23, 1871
	Niles, Sinclair D. G., and William Goodwin. (<i>See Goodwin & Niles.</i>)	
116,213	Niles, William F., and Seth G. Pitts, Leominster, Mass. Manufacture of articles from pulverized horn	June 20, 1871
113,687	Nimmo, Archibald, assignor to self, Thomas Moran, and Valentine Stausse, Philadelphia, Pa. Mechanical movement	April 11, 1871
115,508	Same..... Loom	May 30, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,608	Nimmo, George, assignor to Arthur Pickering, Charles R. Vickery, Charles R. Atwood, and the Phoenix Manufacturing Company, Jersey City, N. J. Crucible for melting steel and other metals..... (Reissue)	Oct. 24, 1871
	Nippes, Albert S., deceased, by Daniel S. Nippes, administrator, Upper Merion Township, Pa. Grinding saws..... (Extension)	April 5, 1871
112,952	Nisewander, Jacob S., Oakland, Cal. Ankle-brace.....	Mar. 21, 1871
113,085	Same..... Grinding-mill for ores.....	Mar. 28, 1871
	Niven, William B., and John Detrick. (See Detrick & Niven.)	
121,121	Nix, John Day, Noble, Ill. Cotton and hay press.....	Nov. 21, 1871
116,741	Nixon, Abel R., Polo, Ill. Combined cotton-planter and chopper.....	July 4, 1871
118,812	Nixon, Davis, Philadelphia, Pa. Medical compound, or apple-ginger.....	Sept. 12, 1871
115,089	Noble, Alanson F., Indianapolis, Ind. Vapor-burner.....	May 23, 1871
	Noble, Charles, & Co. (See Smith, Samuel, assignor)..... (Three cases.)	
	Same..... (See Beesley & Ferris, assignors)..... (Design.)	
4,819	Noble, Charles, assignor to Charles Noble & Co., Philadelphia, Pa. Plate of a cooking-stove..... (Design)	April 15, 1871
120,528	Same..... Gridiron.....	Oct. 31, 1871
114,030	Noble, James M., Delhi, Iowa. Washing-machine.....	April 25, 1871
117,318	Noble, Oscar W., assignor to self and Luke Agur, Darlington, Wis. Cover for the lenses of photographic cameras.....	July 25, 1871
116,345	Noble, Wilson, Derby, Conn. Die for making carriage-clips.....	June 27, 1871
120,768	Nobles, John C., Ilion, N. Y. Broiler.....	Nov. 7, 1871
120,769	Same..... Culinary utensil for boiling and frying.....	Nov. 7, 1871
110,781	Nobles, William H., assignor to self and C. D. Williams, Saint Paul, Minn. Heating stove and drum.....	Jan. 3, 1871
120,211	Nobles, William Henry, Saint Paul, Minn. Fire-escape and hose-elevator.....	Oct. 24, 1871
115,090	Noel, Theodore, Memphis, Tenn. Watch-makers' gauge.....	May 23, 1871
121,122	Nolan, Nicholas, New York, N. Y. Feed-water regulator. (Antedated Nov. 6, 1871).....	Nov. 21, 1871
119,639	Nolen, John S., Paulsborough, N. J. Cultivator.....	Oct. 3, 1871
119,529	Nolker, William F., and Edward H. Morgan, Cincinnati, Ohio. Machine for making staples.....	Oct. 3, 1871
	Nonotuck Silk Company. (See Dimock, Ira, assignor.)	
116,086	Norboe, Frederick, Chicago, Ill. Water-supply attachment to wash-basins.....	June 20, 1871
113,198	Norcross, John, West Newton, Pa. Medicine or powder for horses, &c.....	Mar. 28, 1871
113,688	Norcross, Joseph W., Boston, Mass. Pulley-block.....	April 11, 1871
113,689	Same..... Tackle-hook.....	April 11, 1871
117,667	Nordyke, Addison H., and Daniel W. Marmon, Richmond, Ind. Grinding-mill.....	Aug. 1, 1871
117,668	Same..... same.....	Aug. 1, 1871
114,031	Norelius, Oliver, Minneapolis, Minn. Paper-feeding machine.....	April 25, 1871
115,347	Norman, James, Brooklyn, N. Y. Tassel.....	May 30, 1871
116,860	Same..... same.....	July 11, 1871
116,024	Norman, James, assignor to Leah Anna Norman, Brooklyn, N. Y. Curtain-fixture.....	July 4, 1871
113,914	Norman, John, assignor to William H. Howland, Scotland. Machine for dressing millstones.....	April 18, 1871
121,404	Normando, Richard L., Higginsville, N. Y. Clothes-drier.....	Nov. 28, 1871
111,768	Norment, William Giles, Dyersburgh, Tenn. Step and tram-box for mill-spindles.....	Feb. 14, 1871
111,769	Norny, Elwood R., McDonough, Del. Hand-washing rubber.....	Feb. 14, 1871
113,915	Norris, Daniel W., assignor to Michael Neill, Paxton, Ill. Brace for carriage-springs.....	April 18, 1871
112,837	Norris, George S., Baltimore, Md. Sweeping-machine.....	Mar. 21, 1871
112,872	Norris, Richard H., Paterson, N. J. Spool show-case.....	Feb. 28, 1871
113,199	Norris, Stephen R., New York, N. Y. Oiler for loose pulleys.....	Mar. 28, 1871
4,284	North, Albert H., assignor through mesne assignments to Rufus S., William B., and Joshua Merrill, Hartford, Conn. Lamp..... (Reissue)	Feb. 28, 1871
115,886	North, Crandall J., Auburn, N. Y. Book-support.....	June 13, 1871
	North, Frederic H. (See Terwilliger, William, assignor.)	
	Same..... (See Pillard, Oliver E., assignor)..... (Two cases.)	
121,540	North, John, assignor of one-half interest to Amos J. Osgood and George S. Plympton, New York, N. Y. Car-starter.....	Nov. 5, 1871
114,326	North, John, assignor to A. H. Harris, New York, N. Y. Millstone-dressing guide.....	May 2, 1871
	North, John. (See Delkescamp, Adolph, assignor.)	
	North, O. B., & Co. (See Bradley, Frederick A., assignor.)	
116,476	North, Thomas, Cincinnati, Ohio. Street-lamp.....	June 27, 1871
113,690	Northrop, Albert, Elyria, Ohio. Milk-cooler.....	April 11, 1871
114,327	Northrop, Jay, and James F. Emmons, Bridgeport, Conn. Implement for alluring hat-bodies.....	May 2, 1871
117,319	Northrup, Calvin M., New York, N. Y. Furnace-grate.....	July 25, 1871
	Northrup, Charles L., and Silas A. Hsley. (See Chace, John K., assignor.) (Reissue.)	
111,140	Northrup, Henry J., Lansingburgh, N. Y. Clamp for carriage-seats.....	Jan. 24, 1871
119,530	Northup, Louis L., Johnston, R. I. Lobe-attachment for ear-drops.....	Oct. 3, 1871
117,104	Northup, Nelson G., Bloomington, Minn. Roof.....	July 18, 1871
121,892	Northway, Alonzo D., Kenosha, Wis. Gate for swing-bridges.....	Dec. 12, 1871
	North Western Fire-Extinguisher Company. (See Van Dyne, Jacob B., assignor.)	
114,466	Norton, Alfred, Kokomo, Ind. Sleigh-heater.....	May 2, 1871
121,807	Norton, Edwin, Chicago, Ill. Die for making blanks for stove-pipe elbows.....	Dec. 12, 1871
113,788	Norton, Edwin D., Cuba, N. Y. Hinge for gates.....	April 15, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date
115,509	Norton, Edwin D., Cuba, N. Y. Hinge	May 30, 1871
	Norton, Eugene L., Charlestown, Mass. Process of manufacturing leather shoe-binding. (Extension)	May 17, 1871
110,864	Norton, Marcus P., assignor to Helen M. Ingalls, Troy, N. Y. Hand-stamp	Jan. 10, 1871
111,672	Norton, Russell W., New Haven, Conn. Clock, pendulum-rod	Feb. 7, 1871
115,091	Norton, Samuel, Great Britain. Cock	May 23, 1871
	Norton, S. S. (See Davis, William M., assignor.)	
	Norville, William, <i>et al.</i> (See Phillips, George B., assignor.)	
	Norwalk Lock Company. (See Elwell, Henry H., assignor.)	
112,171	Norwood, Rufus F., Charlotte, N. C. Cotton-planter	Feb. 23, 1871
114,591	Notman, George, Deerfield, Ohio. Horse hay-rake	May 9, 1871
117,917	Same. Hay-rake	Aug. 8, 1871
112,621	Nott, Aaron B., assignor to self and P. E. Merrihew, Fair Haven, Mass. Mode of attaching pipes to sinks, drains, &c.	Mar. 14, 1871
113,200	Nottingham, Thomas J., Cincinnati, Ohio. Lubricator	Mar. 28, 1871
121,541	Nourse, Benjamin B., Westborough, Mass. Folding plant-stand	Dec. 5, 1871
	Nourse, Gilbert D., <i>et al.</i> (See Duff, Roberts & Nourse.)	
110,672	Nourse, Lucy S., (formerly Lucy Sawyer,) Templeton, Mass. Flour-sifter. (Antedated Dec. 17, 1870)	Jan. 3, 1871
113,330	Noyes, Charles Horace, Brooklyn, N. Y. Comb	April 4, 1871
115,348	Noyes, Horatio J., Ashtabula, Ohio. Tin-grooving machine	May 30, 1871
	Noyes, James, and Frederick W. Bailey. (See Coffin, John E., assignor.)	
114,467	Noyes, Josiah H., Abington, Mass. Nozzle-stopper for oil-cans	May 2, 1871
	Noyes, Person, and Jacob Edson. (See Edson & Noyes.)	
	Nugent, Edward, and John Fanning. (See Fanning & Nugent.)	
5,423	Nulu, Michael, assignor to James L. Jackson & Brother, New York, N. Y. Rack for robes	Dec. 12, 1871
111,141	Nussey, George H., and William B. Leachman, England. Machine for pressing fabrics	Jan. 24, 1871
114,328	Nutter, Grafton T., Jersey City, N. Y. Apparatus for lifting locomotives, trucks, and railroad-cars	May 2, 1871
118,045	Nutting, D. Chaplin, and Joseph D. Allen, Bowling Green, Ky. Reel for harvesters. (Antedated Aug. 10, 1871)	Aug. 15, 1871
111,237	Nutting, Rufus, Randolph, Vt. Lamp	Jan. 24, 1871
112,172	Same. Chandelier gas-burner	Feb. 28, 1871
114,329	Same. Protector for gas or vapor burners	May 2, 1871
4,487	Nyce, Benjamin Markley, Cleveland, Ohio. Building for preserving fruit and other substances	July 25, 1871
	Nyland, Henry, and John and George Heesen. (See Heesen & Nyland.)	
120,086	Oakley, John M., Green Point, N. Y. Shield and towel-rack for wash-stands	Oct. 17, 1871
121,190	Oakley, Joseph S., Passaic, N. J. Step-ladder	Nov. 21, 1871
120,994	Oakley, Joseph S., Passaic, N. J., and Oscar D. Wood, Newburgh, N. Y. Lawn-mower	Nov. 14, 1871
115,767	Oakley, Oliver B., assignor of one-half interest to Peter Thomas, San Francisco, Cal. Parlor-skate	June 6, 1871
117,320	Oakman, Samuel, Boston, Mass. Chimney	July 25, 1871
119,944	Oat, Alfred A., assignor of one-half interest to Charles D. Macqueen, Philadelphia, Pa. Hinge	Oct. 17, 1871
	Oatley, George D., and William C. Burch. (See Burch & Oatley.)	
	Obdyke, William, and William Austin. (See Austin & Obdyke.)	
122,275	Obenchain, Matthew W., and John T., Logansport, Ind. Turbine water-wheel	Dec. 26, 1871
117,669	Ober, Thomas K., Philadelphia, Pa. Hemmer for sewing-machines	Aug. 1, 1871
115,230	Obernesser, Jacob, Cincinnati, Ohio. Permutation-lock	May 23, 1871
115,231	Obernesser, Jacob, assignor to Charles Diebold and Jacob Kienzle, Cincinnati, Ohio. Permutation-lock	May 23, 1871
114,592	Oblenis, Charles M., New York, N. Y. Carriage-window	May 9, 1871
116,346	O'Brian, Patrick, New York, N. Y. Scrubbing-brush. (Antedated June 15, 1871)	June 27, 1871
	O'Brien, Charles L. (See Thompson, Edwin C., assignor.)	
	O'Brien, Patrick, <i>et al.</i> (See Graham, Snyder & O'Brien.)	
114,330	Obst, Augustin, Cambridgeport, Mass. Coffee-roaster	May 2, 1871
118,474	Ochsner, Joseph, New Brighton, Pa. Shaft-coupling	Aug. 29, 1871
119,991	O'Connor, Elizabeth, Philadelphia, Pa. Bee-hive	Oct. 17, 1871
118,740	O'Connor, Francis B., New York, N. Y. Lifting-machine	Sept. 5, 1871
116,987	O'Connor, George and Haines, Mishawaka, Ind. Corn-sheller	July 11, 1871
114,846	O'Connor, Michael, Bangor, Mich. Spark-arrester	May 16, 1871
114,032	O'Connor, Patrick, Youngstown, Ohio. Newspaper-addressing machine	April 25, 1871
4,741	Ocorr, Henry, Sheboygan, Wis. Chair	Mar. 28, 1871
4,742	Same. same	Mar. 28, 1871
115,979	Same. Chair and stool iron	June 13, 1871
119,393	Same. Machine for bending wood	Sept. 26, 1871
	Same. (See Kingsland, Samuel, assignor)	(Reissue.)
115,634	Odiorne, Alfred, Springfield, Ill. Seal for hydraulic main of gas-works	June 6, 1871
	O'Donald, James, and Thomas Moore. (See Moore & O'Donald.)	
117,805	O'Donnell, James D., Washington, D. C. Apparatus for generating carbonic acid gas	Aug. 8, 1871
111,770	O'Donoghue, John T., and Alexander Leavitt, New York, N. Y. Blind-slat regulator	Feb. 14, 1871
114,468	Oehl, Charles A., assignor to Ernest Greenfield and Philip Strauss, New York, N. Y. Machine for rolling lozenge and other paste	May 2, 1871
120,087	Oehme, Adolf, Rock Island, Ill. Machine for bending and channeling horseshoes	Oct. 17, 1871
120,088	Same. Machine for punching the holes in and bending the calks in horseshoes	Oct. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Oehring, Ludwig, and Philip Diehl. (<i>See Diehl & Oehring.</i>)	
111,561	Oerter, John H., New York, N. Y. Invalid-bedstead	Feb. 7, 1871
121,191	Oesterle, Herman A., Philadelphia, Pa. Portable book-holder	Nov. 21, 1871
5,269	Oesterling, John, Wheeling, W. Va. Feet for glassware (Design)	Sept. 19, 1871
5,318	Same.....Ornamentation of glassware (Design)	Oct. 17, 1871
121,655	Oeth, John P., Canton, Mo. Refrigerator	Dec. 5, 1871
	Ofeldt, Frans W., and August W. Almqvist. (<i>See Almqvist & Ofeldt.</i>)	
119,394	O'Friel, James, Brooklyn, N. Y. Manufacture of artificial stone.....	Sept. 26, 1871
111,375	Ogborn, Harrison, assignor to Samuel T. Baker, Richmond, Ind. Fanning-mill..	Jan. 31, 1871
119,169	Ogden, John S., Johnstown, Pa. Culinary steamer	Sept. 19, 1871
120,895	Ogden, Mancelia E., New York, N. Y. Apparatus for forcing liquids	Nov. 14, 1871
114,331	O'Hare, Charles Melsom, Cincinnati, Ohio. Hand corn-sheller.....	May 2, 1871
117,105	Same.....same	July 18, 1871
117,670	Same.....Hand corn-husker	Aug. 1, 1871
115,092	Ohm, Henry P., Baltimore, Md. Sawing-machine	May 23, 1871
118,475	Ojeda, Anthony V., San Francisco, Cal. Aerostatic jack	Aug. 29, 1871
112,071	Okey, Joseph B., assignor to self and Ferdinand A. Lehr, Indianapolis, Ind. Clod-crusher	Feb. 1, 1871
4,725	Old, Ansborn F., assignor to J. A. Bancroft & Co., Philadelphia, Pa. Side-frame of school-desks..... (Design)	Mar. 21, 1871
117,671	Oldberg, Oscar, Washington, D. C. Disinfecting compound	Aug. 1, 1871
118,813	Same.....Solution of balsamic gums for medicinal purposes, cosmetics, perfumery, &c.....	Sept. 12, 1871
4,621	Oldfield, Edwin, Norwich, Conn. Suspender-link..... (Design)	Jan. 31, 1871
117,672	Same.....Loom	Aug. 1, 1871
5,151	Oldham, George, Youngstown, Ohio. Shoe-clasp	Aug. 1, 1871
114,184	Oldham, George, jr., Cuba, N. Y. Trace-buckle	April 25, 1871
112,953	Olds, Henry H., New Haven, Conn. Pie-case	Mar. 21, 1871
	Olds, Noble G. (<i>See Hurlburt, Benjamin, assignor.</i>)	
119,714	O'Leary, Arthur, Iowa City, Iowa. Water-meter.....	Oct. 10, 1871
5,188	O'Leary, Dennis, Hubbard, Ohio. Blacking-box..... (Design)	July 11, 1871
114,033	Oler, Joseph, Eagle Point, Ill. Gang-plow	April 25, 1871
110,673	Oliver, Andrew V. D. H., Bethlehem, N. Y. Wagon-brake	Jan. 3, 1871
111,771	Oliver, Ebenezer, New York, N. Y. Animal-trap	Feb. 14, 1871
111,772	Oliver, Henry W., jr., Pittsburgh, Pa. Rolled bar for nut-blanks.....	Feb. 14, 1871
111,965	Oliver, James, South Bend, Ind. Plow	Feb. 21, 1871
114,469	Same.....Chill for plow-castings	May 2, 1871
117,806	Oliver, James H., Baltimore, Md. Trunk-lock.....	Aug. 8, 1871
118,476	Same.....Car-coupling	Aug. 29, 1871
118,548	Oliver, James L., Boston, Mass. Waste-pipe for sinks	Aug. 29, 1871
	Olmstead, Hiram R., and Richard W. Jones. (<i>See Eames, Horace N., assignor.</i>) (Reissue.)	
121,405	Olmsted, Marcellus, Alum Creek, Tex. Belt-fastener.....	Nov. 28, 1871
116,988	Olmsted, Oliver A., Sebastopol, Cal. Shingle-machine	July 11, 1871
	Olson, Rasmus, and Ib Jorgenson. (<i>See Jorgenson & Olson.</i>)	
116,214	Olson, Tannis A., Beloit, Wis. Door-lock.....	June 20, 1871
	Onderdonk, John P. (<i>See Hebbard, Albert, assignor.</i>) (Two cases.) (Reissue.) Same.....same.....	
120,314	O'Neil, John K., Kingston, N. Y. Straw-cutter	Oct. 24, 1871
113,331	O'Neil, Richard, New York, N. Y. Ornamenting the surface of metals by electro-depositions from solutions	April 4, 1871
111,238	O'Neill, Patrick, Murfreesborough, Tenn. Gate	Jan. 24, 1871
113,789	Onions, William, and Isaac Bagnall, Saint Louis, Mo. Extension-pulley	April 18, 1871
110,782	Oppenheimer, Joseph D., Philadelphia, Pa. Hair puff or roll	Jan. 3, 1871
118,262	Oppermann, Ulrich, Washington, D. C. Combined lathe and gear-cutter	Aug. 22, 1871
	Orbeton, William W. S. (<i>See Stockbridge, Lyman R., assignor.</i>)	
114,185	Orchard, Thomas, Sacramento, Cal. Earth-auger	April 25, 1871
114,470	Orcutt, Charles Henry, Leonminster, Mass. Enameling boot and shoe heels	May 2, 1871
	Orcutt, Jerome, and Albert C. Hobbs. (<i>See Hobbs & Orcutt.</i>)	
110,931	Ordway, Albert H., Haverhill, Mass. Cradle	Jan. 10, 1871
	O'Reilly, Farrell Jerome. (<i>See Benton, Albert Frederick, assignor.</i>)	
116,861	Ormsbee, Mansel A., Fairhaven, Vt. Invalid-bedstead	July 11, 1871
120,089	Ormsbee, Marcus, Brooklyn, N. Y. Life-preserver	Oct. 17, 1871
117,807	Orndorff, John S., Virginia City, Nev. Poultry-fountain	Aug. 8, 1871
117,450	O'Rorke, Thomas, Pittsburgh, Pa. Siphon steam-pump.....	July 25, 1871
114,471	Orphy, John, assignor to Horace Parmelee and William H. Bonnell, Buffalo, N. Y. Lantern.....	May 2, 1871
119,945	Orr, Galen, Needham, Mass. Machine for making blind-hinge hooks	Oct. 17, 1871
	Orr, Painter & Co. (<i>See Kuechler, Jacob Louis, assignor.</i>) (Design.)	
	Same.....(<i>See Martino & Currie, assignors.</i>) (Design.)	
	Same.....(<i>See Steffe, Jacob, assignor.</i>) (Design.)	
	Same.....(<i>See Rose & Caley, assignors.</i>) (Design.)	
	Orr, William, jr., and Charles H. Waters. (<i>See Waters & Orr.</i>) (Two cases.) Orsborn, David M., et al. (<i>See Boon, Orsborn & Geer.</i>)	
118,046	Osborn, Addison M., Girard, Pa. Loop for harness	Aug. 15, 1871
118,386	Osborn, Francis M., Port Chester, N. Y. Dental tongue-holder	Aug. 22, 1871
114,593	Osborn, George R., and Benjamin A. Drayton, New York, N. Y. Construction of bird-cages	May 9, 1871
5,254	Same.....Bird-cage..... (Design)	Sept. 5, 1871
5,255	Same.....same..... (Design)	Sept. 5, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,877	Osborn, Isaiah P., and William A. Bayhan; said Bayhan assignor to said Osborn, Wilmington, Ohio. Halter for horses.	Sept. 12, 1871
	Osborn, Joseph, and Richard F. Knox. (<i>See Knox & Osborn.</i>)	
118,741	Osborn, Milo, Cleveland, Ohio. Apparatus for raising sunken vessels	Sept. 5, 1871
116,477	Osborne, Henry B., and Noah W. Hammon, Des Moines, Iowa. School-desk.	June 27, 1871
	Osborne, Horace K. (<i>See Litchfield, Lyman, assignor.</i>)	
111,376	Osborne, John W., Brooklyn, N. Y. Preserving compound for the hands, &c.	Jan. 31, 1871
114,186	Same..... Photographers' steeping-tank	April 25, 1871
114,847	Same..... Foot-brush	May 16, 1871
	Osgood, Amos J., <i>et al.</i> (<i>See North, John, assignor.</i>)	
111,079	Osgood, Charles M., assignor to L. M. Hills & Sons, Amherst, Mass. Hat-machine	Jan. 17, 1871
120,090	Osgood, James H., assignor to self and Samuel H. Hall, Boston, Mass. Brush and scraper for sinks. (Antedated Oct. 12, 1871)	Oct. 17, 1871
113,691	Osgood, Jason C., Troy, N. Y. Excavator	Feb. 11, 1871
	Osgood, Josiah A. (<i>See Renwick, Thomas R., assignor.</i>)	
114,704	Osgood, Otis S., Burlington, Iowa. Bed-bottom	May 9, 1871
120,315	Osgood, Otis S., assignor of one-half interest to S. B. Freeman, Mount Pleasant, Iowa. Bed-bottom	Oct. 24, 1871
119,992	Osgood, Robert R. and Ralph R., Troy, N. Y. Submarine excavator	Oct. 17, 1871
113,444	Osmun, John, and John Carl, Rockport, N. J. Washing-machine	April 4, 1871
116,087	Ostburg, John A., Boston, Mass. Button needle and fastener	June 20, 1871
	Ostergren, Charles, and Peter Rohdin. (<i>See Rohdin & Ostergren.</i>)	
112,622	Ostrander, Cornelius, assignor of one-half interest to Alson Ostrander, Poughkeepsie, N. Y. Fruit-gatherer	Mar. 14, 1871
117,918	Ostrander, Francis A., Troy, N. Y. Stopper for ladles	Aug. 8, 1871
	Ostrander, James. (<i>See English, Samuel, assignor.</i>)	
113,332	Ostrander, Jonathan, Manchester, Va. Machine for rolling hollow bars for nnts.	April 4, 1871
114,187	Same..... Pile for nut-blanks, tubes, &c	April 25, 1871
114,188	Same..... same	April 25, 1871
112,173	O'Sullivan, Cornelius B., New Orleans, La. Faucet	Feb. 28, 1871
120,622	O'Sullivan, Jeremiah F. and Philip W., Jackson, Miss. Self-closing telegraph-key	Nov. 7, 1871
120,995	O'Sullivan, Mary M. J., New Haven, Conn. Dinner-plate cover	Nov. 14, 1871
118,878	O'Thayne, Patrick, New York, N. Y. Ironing-table	Sept. 12, 1871
110,993	Otis, Charles R. and Norton P., Yonkers, N. Y. Hoisting-apparatus	Jan. 17, 1871
113,555	Same..... same	April 11, 1871
4,269	Otis, E. G., assignor to Otis, Brothers & Co., Yonkers, N. Y. Hoisting-apparatus (Division A, reissue)	Feb. 21, 1871
4,270	Same..... Hoisting-apparatus (Division B, reissue)	Feb. 21, 1871
4,271	Same..... same (Division C, reissue)	Feb. 21, 1871
117,321	Otis, James K., East Cambridge, Mass. Book-rack	July 25, 1871
114,189	Otis, Joel A., Watertown, N. Y. Fence-post	April 25, 1871
110,674	Otis, John L., Leeds, Mass. Belt-shippers	Jan. 3, 1871
112,838	Same..... Machine for grinding saw-teeth	Mar. 21, 1871
	Otis, Merrick F., and George Jennisen. (<i>See Jennisen & Otis.</i>)	
121,656	Otis, Samuel A., Boston, Mass. Draught-pole for horse-cars. (Antedated Nov. 20, 1871)	Dec. 5, 1871
112,839	Ott, Adolph, assignor to New York Metal and Chemical Manufacturing Company, New York, N. Y. Preparing tin salts from tinner's waste	Mar. 21, 1871
118,477	Ott, Adolph, assignor of one-half interest to Thomas F. Wells, New York, N. Y. Manufacture of artificial stone	Aug. 29, 1871
	Ott, John G. (<i>See Johnson, Moses, assignor.</i>)	
	Ott, Stephen, and John C. Rupp. (<i>See Rupp & Ott.</i>)	
4,930	Ottner, Joseph, assignor to Hart Manufacturing Company, New Britain, Conn. Cupboard-latch (Design)	May 23, 1871
116,742	Otto, George, and George W. Bauer, Washington, D. C. Bottle-fastener	July 4, 1871
120,091	Oulton, James W., Amherst, Nova Scotia. Thill-coupling	Oct. 17, 1871
117,919	Ouland, Josiah, Barnesville, Ohio. Lever-press	Aug. 8, 1871
116,743	Ovaitt, Amos, Unionville, Conn. Mouse-trap	July 4, 1871
	Ovenden, Philip, <i>et al.</i> (<i>See Rawson, Ovenden, Wyld, McCree & Hill.</i>)	
116,478	Owen, Abner W., and Miol E. Lilley, assignors to selves and A. J. Walter, East Canton, Pa. Bolt-cutter	June 27, 1871
117,773	Owen, Amos D., Thorntown, Ind. Stamp-canceller	Feb. 14, 1871
112,174	Owen, Charles N., Salem, Ohio. Gate	Feb. 28, 1871
121,123	Same..... Track-clearer for harvesters	Nov. 21, 1871
112,273	Owen, George, Jacksonville, Ill. Coupling for plows	Feb. 28, 1871
118,638	Owen, George R., Rome, N. Y. Shoe-brush	Aug. 29, 1871
120,663	Same..... Utica, N. Y. Blacking-brush	Nov. 27, 1871
	Owen, Jesse. (<i>See Hall, Uriah S., assignor.</i>)	
111,080	Owen, Silas R., Stewartsville, Mo. Window-frame	Jan. 17, 1871
118,549	Owens, George W., Fairfield, Iowa. Cultivator	Aug. 29, 1871
	Owens, Lane, Dyer & Co. (<i>See Hamilton, Ira S., assignor.</i>) (Three cases.)	
119,170	Oxer, William James, Williamsport, Ind. Harvester-cutter	Sept. 19, 1871
112,840	Pabst, Charles, Wilmington, Del. Shutter-fastener	Mar. 21, 1871
112,175	Pack, William H., and Joseph S. Vanhorn, Jersey City, N. J. Mattress	Feb. 28, 1871
116,744	Packard, Henry F., assignor to Arza B. Keith, North Bridgewater, Mass. Welt and rand for boots and shoes	July 4, 1871
118,263	Same..... Machine for randing boot and shoe heels	Aug. 22, 1871
4,474	Packard, Leonard, Galesburgh, Ill. Cultivator (Reissue)	July 18, 1871
120,092	Paddock, Charles, Alton, Ill. Thimble-skein	Oct. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Paddock, Harvlin, and Franklin Fairbanks. (<i>See</i> Fairbanks & Paddock.)	
	Paden, John S., and Samuel S. Hammond. (<i>See</i> Hammond & Paden.)	
116,083	Padgham, Amos, Syracuse, N. Y. Manufacture of cutter-bar heads for har-	
	vesters	June 20, 1871
4,588	Page, Charles Grafton, deceased, by Priscilla Webster Page, administratrix,	
	assignor of one-half interest to the Western Union Telegraph Company,	
	Washington, D. C. Induction-coil apparatus and circuit-breaker. (Reissue) ..	Oct. 10, 1871
118,775	Page, Henry D., Morenci, Mich. Rein-holder	Sept. 5, 1871
4,941	Page, James T., Rochester, N. Y. Broiler	May 23, 1871
	(Design) ..	
	Page, Philip S., <i>et al.</i> (<i>See</i> Taber, Freeman Augustus, assignor.)	
	Page, Wilder & Co. (<i>See</i> Webster, John T., assignor) .. (Two cases.) (Design.)	
	Same .. (See Paterson, James, assignor) .. (Design.)	
121,192	Page, William, assignor of one-half interest to John Smith, England. Riddle or	
	sieve	Nov. 21, 1871
4,726	Page, William H., assignor to William H. Page & Co., Norwich, Conn. Type.	
	(Design) ..	Mar. 21, 1871
4,727	Same .. Type ..	Mar. 21, 1871
4,728	Same .. Type-border ..	Mar. 21, 1871
4,820	Same .. Type ..	April 18, 1871
	(Design) ..	
	Pagenstecher, Albert. (<i>See</i> Voelter, Henry, assignor) ..	(Reissue.)
4,324	Paget, Arthur, England. Machine for tightening ropes, &c ..	April 4, 1871
	(Reissue) ..	
115,768	Pagett, George W., Oxford, Ind. Door-check ..	June 6, 1871
112,732	Pagin, Lemuel, Niles, Mich. Compound for destroying potato-bugs ..	Mar. 14, 1871
	Paige, James H. (<i>See</i> French, Samuel, assignor.)	
	Paine, A. W., <i>et al.</i> (<i>See</i> Colby, Calvin M., assignor.)	
112,623	Paine, Charles, assignor to self and Cyril C. Child, Boston, Mass. Paper-cutting	
	machine ..	Mar. 14, 1871
114,190	Paine, Halbert E., Milwaukee, Wis. Wood-pavement ..	April 25, 1871
4,237	Paine, Henry M., assignor through mesne assignments to the Paine Electro-	
	Magnetic Engine Company, Newark, N. J. Construction of electro-magnets.	
	(Reissue) ..	Jan. 24, 1871
112,841	Paine, Henry M., assignor to Mahlon S. Frost, Newark, N. J. Electro-magnetic	
	motor ..	Mar. 21, 1871
113,333	Paine, John Shearer, Cambridge, Mass. Extension lounge ..	April 4, 1871
111,377	Paine, Seth White, Williamsport, Pa. Shot-cartridge ..	Jan. 31, 1871
112,274	Same .. Case-shot ..	Feb. 28, 1871
119,395	Same .. Tool-head for planing-machines ..	Sept. 26, 1871
	Painter, Emlen. (<i>See</i> Neill, Edward Henry, assignor.)	
118,550	Painter, Reuben, Baltimore Md. Machine for preparing metal for solder,	
	printers' leads, &c ..	Aug. 29, 1871
113,916	Pairan, Ferdinand, assignor to self and Henry Myer, Dayton, Ohio. Gate for	
	draw-bridges ..	April 18, 1871
111,239	Palen, Gilbert E., and Florello P. Avery, Tunkhannock, Pa. Bark-mill ..	Jan. 24, 1871
115,349	Palm, John H., Mansfield, Ohio. Letter-board for object-teaching ..	May 30, 1871
120,825	Palmenberg, Joseph R., New York, N. Y. Stand for show-windows ..	Nov. 14, 1871
	Palmer, Amos B., and William C. Jillson. (<i>See</i> Jillson & Palmer) .. (Reissue.)	
113,334	Palmer, Benoni F., Baraboo, Wis. Gate ..	April 4, 1871
111,470	Palmer, Charles H., Brooklyn, E. D., N. Y. Machine for molding knobs ..	Jan. 31, 1871
114,332	Same .. New York, N. Y. Manufacture of split-needles ..	May 2, 1871
119,876	Same .. same ..	Oct. 10, 1871
4,576	Palmer, Charles H., assignor to the Palmer Automatic Bobbin-Winder Com-	
	pany, New York, N. Y. Bobbin-winder for sewing-machines .. (Reissue) ..	Oct. 3, 1871
4,847	Palmer, Cyrus F., Utica, N. Y. School-desk and seat .. (Design) ..	April 25, 1871
	Palmer, Edwin B., and Orlando L. Kenyon. (<i>See</i> Kenyon & Palmer.)	
112,176	Palmer, Frank H., Foxcroft, Me. Countersink ..	Feb. 28, 1871
118,264	Palmer, George, and Charles W. Hubbard, Pittsburgh, Pa. Method of manu-	
	facturing axes ..	Aug. 22, 1871
113,917	Palmer, Isaac E., Hackensack, N. J. Machine for dressing worsted cord ..	April 18, 1871
114,333	Same .. Tackle-block. (Antedated April 22, 1871) ..	May 2, 1871
	Palmer, Isaac E., and John Turner. (<i>See</i> Turner & Palmer) .. (Reissue.)	
112,624	Palmer, Jason J., and Franklin G., Pittsburgh, Pa. Globe holder and cooler	
	combined for vapor-burners ..	Mar. 14, 1871
	Palmer, Jonathan, <i>et al.</i> (<i>See</i> Boswell, Palmer & James.)	
119,396	Palmer, Joseph H., Yonkers, N. Y. Washing-machine ..	Sept. 26, 1871
121,124	Palmer, Leeman C., Howard, Pa. Device for slitting and looping rags for	
	carpets ..	Nov. 21, 1871
117,920	Palmer, Lemuel R., Belfast, Me. Stave-jointer ..	Aug. 3, 1871
118,387	Same .. same ..	Aug. 22, 1871
118,145	Palmer, Milton J., Syracuse, N. Y. Ruffling and cording attachment for sew-	
	ing-machines ..	Aug. 15, 1871
116,625	Palmer, Samuel M., Glen's Falls, N. Y. Circular-saw mill ..	July 4, 1871
121,406	Palmer, Sidney W., and Elliott G. Storke, assignors to William J. Moses,	
	Auburn, N. Y. Bench-plane ..	Nov. 28, 1871
	Palmer, Sidney W., and Munson C. Cronk. (<i>See</i> Cronk & Palmer) .. (Reissue.)	
121,657	Palmer, Sidney W., and J. Foreman, Auburn, N. Y. Clothes-wringer ..	Dec. 5, 1871
115,510	Palmer, William, New York, N. Y. Chair for railroad-cars ..	May 30, 1871
116,745	Palmlund, Peter, Brooklyn, N. Y. Device for transmitting motion ..	July 4, 1871
	Pancake, John S., and William C. Hays. (<i>See</i> Hays & Pancake.)	
	Pancoast, Franklin. (<i>See</i> Still, John W., assignor.)	
117,808	Pangborn, James V., assignor to self and James T. Clark, Galesburgh, Ill.	
	Balance-valve for steam-pumps ..	Aug. 8, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
122,050	Pangle, David, Belmont, Ohio. Fire-place grate.....	Dec. 19, 1871
114,963	Paquet, Anthony C., Philadelphia, Pa. Bank-check.....	May 16, 1871
112,954	Paradis, Joseph, assignor to self and Sarah Parker, Brooklyn, N. Y. Car brake and starter.....	Mar. 21, 1871
120,316	Paradis, Joseph, assignor to self, William H. Drew, and Charles Parker, Brooklyn, N. Y. Brake for railway-cars.....	Oct. 24, 1871
110,994	Paraf, Alfred, assignor to Edward Sabine Renwick, trustee, New York, N. Y. Material called "oleizerine" for dyeing and printing.....	Jan. 17, 1871
110,995	Same.....Process of extracting the coloring-matter of madder.....	Jan. 17, 1871
111,142	Same.....Obtaining madder-extracts. (Antedated Dec. 29, 1870).....	Jan. 24, 1871
113,918	Same.....Preparation of madder.....	April 18, 1871
113,919	Same.....Composition of madder for printing cloths, &c.....	April 18, 1871
4,363	Same.....Process of obtaining bright colors upon cloth by printing. (Reissue).....	May 2, 1871
120,392	Paraf, Alfred, assignor to the Madder Color Company, New York, N. Y. Composition of madder for dyeing.....	Oct. 31, 1871
120,393	Same.....Dyeing and printing madder-colors.....	Oct. 31, 1871
112,372	Pardieck, John Henry, assignor to self and Samuel M. Brown, Acton, Ind. Boring-machine.....	Mar. 7, 1871
119,715	Pardy, George, San Francisco, Cal. Identifying-stamp.....	Oct. 10, 1871
119,784	Parham, Charles, Philadelphia, Pa. Means for mounting sewing-machines upon their tables.....	Oct. 10, 1871
113,086	Paris, Daniel E., Troy, N. Y. Cooking-stove.....	Mar. 28, 1871
113,556	Same.....same.....	April 11, 1871
113,790	Same.....same.....	April 18, 1871
119,045	Same.....same.....	Sept. 19, 1871
115,887	Parisen, William B., Newark, N. J. Concrete asphaltic pavement.....	June 13, 1871
112,484	Park, Amou, Germanville, Iowa. Straw-cutter.....	Mar. 7, 1871
116,347	Park, John, assignor through mesne assignments to Hale & Manley, Philadelphia, Pa. Bottle-stopper.....	June 27, 1871
111,471	Park, Robert W., Philadelphia, Pa. Vapor-burner.....	Jan. 31, 1871
112,373	Same.....same.....	Mar. 7, 1871
111,143	Park, Webster, Norwich, Conn. Water-meter.....	Jan. 24, 1871
	Park, William C., and Baxter Wright. (See Wright & Park.)	
113,791	Parke, Ira S., Virginia City, Nev. Amalgamating-pan for gold and silver ores.....	April 18, 1871
116,348	Parke, Thomas Bee, near Downieville, Cal. Churn.....	June 27, 1871
	Parker & Whipple Company. (See Cinquini, Pietro, assignor.) (Two cases.) (Design.)	
	Same.....(See Hubbard, George M., assignor.)	
113,692	Parker, Anna and Lewis A., Girard, Kans. Combined bedstead, bureau, and stand.....	April 11, 1871
121,465	Parker, A. James, Lynn, Mass. Edge-plane for boot and shoe makers.....	Dec. 5, 1871
	Parker, Charles. (See Fosket, William, assignor.)	
	Same.....(See Cinquini, Pietro, assignor).....(Design.)	
	Same.....(See Boynton, Edward S., assignor.)	
	Parker, Charles, et al. (See Paradis, Joseph, assignor.)	
114,705	Parker, Charles H., Boston, Mass. Wrought iron and steel column.....	May 9, 1871
117,451	Parker, Charles W., Genesee Forks, Pa. Water-wheel.....	July 25, 1871
	Parker, Christopher C., and Oliver P. Reeve. (See Reeve & Parker.)	
117,809	Parker, David Otho, Liverpool, Nova Scotia. Cradle.....	Aug. 8, 1871
117,810	Same.....Combined chair and cane.....	Aug. 8, 1871
118,478	Same.....Folding wash-stand.....	Aug. 29, 1871
118,479	Same.....Children's high-chair and work-stand combined.....	Aug. 29, 1871
118,480	Same.....Excursion-chair.....	Aug. 29, 1871
110,783	Parker, Edward Lawley, Birmingham, England. Fastening for braces, &c.....	Jan. 3, 1871
112,072	Parker, Enos L., Painesville, Ohio. Clothes-drier.....	Feb. 21, 1871
112,842	Parker, George G., and William P. Dodge, Prospect, N. Y. Bit and drill-brace.....	Mar. 21, 1871
118,146	Parker, George H., Detroit, Mich. Machine for brushing and finishing leather.....	Aug. 15, 1871
117,106	Parker, George W., Watkins, N. Y. Photographic camera.....	July 18, 1871
111,378	Parker, Jerome M., Leicester, Mass. Loom-picker.....	Jan. 31, 1871
115,093	Parker, John Hanson, Waltham, Mass. Key-hole protector.....	May 23, 1871
116,479	Parker, John L., Worcester, Mass. Apparatus for tapering ferrules.....	June 27, 1871
112,843	Parker, Noah, Trimble County, Ky. Gate.....	Mar. 21, 1871
	Parker, Norman S., and Albert L. Moore. (See Moore & Parker.)	
119,946	Parker, Sanford A., assignor to self and Frederick G. Cass., Cambridge, Mass. Apparatus for the manufacture of chocolate drops and other confections.....	Oct. 17, 1871
	Parker, Sarah. (See Paradis, Joseph, assignor.)	
119,171	Parker, Thomas, Shelby, N. C. Lubricator for picker-spindle in looms. (Antedated Sept. 16, 1871).....	Sept. 19, 1871
112,275	Parker, Thomas U., Mifflintown, Pa. Wash-boiler.....	Feb. 28, 1871
114,334	Parker, William F., assignor to self, John R. Goldthwaite, and William H. Fryer, Troy, Ala. Plow.....	May 2, 1871
118,481	Parkhurst, Edward G., assignor to the Pratt & Whitney Company, Hartford, Conn. Machinery for feeding wire to machines.....	Aug. 29, 1871
	Parkhurst, Jonathan. (See Brockway, Damon W., assignor.)	
4,697	Parkin, William, assignor to Reed and Barton, Taunton, Mass. Table-caster. (Design).....	Mar. 7, 1871
4,710	Same.....Spoon or fork handle.....(Design).....	Mar. 14, 1871
5,190	Same.....Cake-dish.....(Design).....	Aug. 8, 1871
5,445	Same.....Cake-tazza or flower-stand.....(Design).....	Dec. 19, 1871
	Parkins, Joseph, and George Polyblank. (See Polyblank & Parkins.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,445	Parkinson, Charles Braham, Aaron and John Metcalf, and William Hesketh Heald, England. Self-acting mule for spinning	April 4, 1871
119,397	Parkman, Delbert A., Union City, Tenn. Harrow	Sept. 26, 1871
111,240	Parkman, Harrison, Philadelphia, Pa. Spade	Jan. 24, 1871
4,969	Same. (Design)	May 30, 1871
110,996	Parks, Caroline, Milan, Ohio. Tree-protector	Jan. 17, 1871
118,265	Parks, Nathaniel, and George A. Hynds, Rome, N. Y. Wash-boiler	Aug. 23, 1871
111,562	Parks, William, Meadville, Pa. Churn	Feb. 7, 1871
110,932	Parliman, Albert, Palmyra, N. Y. Neck-yoke of harness	Jan. 10, 1871
114,191	Parmelee, Dubois D., New York, N. Y. Electro-plating the interior of pipes and tubes with silver, nickel, &c	April 25, 1871
	Parmelee, Horace. (See Bonnell, William H., assignor.) (Two cases.) (Reissue.)	
	Parmelee, Horace, and William H. Bonnell. (See Orphy, John, assignor.)	
113,201	Parmenter, Charles O., Amherst, Mass. Sewing-machine	Mar. 23, 1871
117,921	Parmerlee, James C., Beau Blossom, Ind. Machine for scouring and stretching leather	Aug. 8, 1871
	Parmy, S. P. (See Cannell, Robert A., assignor.)	
119,877	Parr, William G., Normal, Ill. Car-axle box	Oct. 10, 1871
115,511	Parrish, Edward, Philadelphia, Pa. Paper for napkins and other articles	May 30, 1871
111,673	Parrish, James C., Petersburg, Va. Animal-trap	Feb. 7, 1871
114,335	Same. Coal-scuttle	May 2, 1871
4,557	Parrish, John H., Greensborough, Ala. Land-mark (Design)	Jan. 3, 1871
115,980	Parrish, William, Dayton, Oreg. Gaug-plow	June 13, 1871
	Parrish, William G., et al. (See Martin, Parrish & Petrie.)	
	Parrott, Joseph S. (See Jones, James H., assignor.)	
115,350	Parry, George T., Philadelphia, Pa. Vapor-burner	May 30, 1871
113,335	Parsels, Benjamin T., and John L. Hedges, Hanover, N. J. Platform-spring coupling	April 4, 1871
	Parsil, Edwin R., and Francis Degen. (See Degen & Parsil.)	
	Parsons, Alfred, et al. (See Thurston, Levi P., assignor.)	
110,997	Parsons C. Chauncey, New York, N. Y. Apparatus for distilling and concentrating liquids	Jan. 17, 1871
116,215	Parsons, Emogene L., Grand Lodge, Mich. Compound for curling hair. (Ante-dated June 10, 1871)	June 20, 1871
116,746	Parsons, Francis W., Cleveland, Ohio. Sleeping-car	July 4, 1871
114,964	Parsons, George W., and William S. Finney, Harrisburgh, Pa. Cultivator and shovel-plow	May 16, 1871
	Parsons, Henry H., administrator. (See Hurd, Edwin F.)	
	Parsons, James S. (See Graham, William W., assignor.)	
111,774	Parsons, John M., Charles City, Iowa. Corn-planter	Feb. 14, 1871
	Parsons, J. Russell. (See Dickinson, Charles G., assignor.) (Reissue.)	
	Same. (See Allen, Samuel S., assignor.) (Reissue.)	
116,626	Parsons, Lewis K., Charles E. Getchell, and Samuel W. Fairfield, Salem, Mass. Tanners' steeper	July 4, 1871
122,190	Parsons, Stephen, Saint Francisville, Mo. Tuvare	Dec. 26, 1871
	Parsons, Theodore, and Addison Davis. (See Davis & Parsons.)	
114,192	Partz, August F. W., Oakland, Cal. Refining sugar. (Antedated April 22, 1871)	April 25, 1871
116,480	Parus, Zeno F., assignor to George C. Hicks & Co., Baltimore, Md. Tile-machine	June 27, 1871
119,878	Parvin, Robert C., Philadelphia, Pa. Traction-engine	Oct. 10, 1871
116,059	Passel, George W., assignor to J. A. Fay & Co., Cincinnati, Ohio. Tenoning-machine	June 20, 1871
113,336	Passmore, Everett G., Philadelphia, Pa. Lawn-mower	April 4, 1871
111,563	Patch, Asahel H., Hamilton, Mass. Clothes-drier	Feb. 7, 1871
116,627	Same. Corn-sheller	July 4, 1871
5,337	Patchett, Joseph James, assignor to Joseph Wild & Co., England. Carpet-pattern (Design)	Oct. 31, 1871
5,338	Same. Carpet-pattern (Design)	Oct. 31, 1871
117,673	Paterson, Francis, Montreal, Canada. Apparatus for loading ships	Aug. 1, 1871
4,639	Paterson, James, assignor to Thomas Potter, Son & Co., Elizabeth, N. J. Oil-cloth pattern (Design)	Feb. 7, 1871
4,674	Paterson, James, assignor to Richard H. and Benjamin C. Reeve, Elizabeth, N. J. Oil-cloth pattern (Design)	Feb. 21, 1871
5,393	Paterson, James, assignor to Page, Wilder & Co., Elizabeth, N. J. Oil cloth pattern (Design)	Nov. 28, 1871
111,241	Paterson, John, Troy, N. Y. Stop-valve	Jan. 24, 1871
111,242	Same. same	Jan. 24, 1871
5,280	Paton, David, assignor to Joseph Wild & Co., New York, N. Y. Carpet-pattern (Design)	Sept. 26, 1871
5,281	Same. Carpet-pattern (Design)	Sept. 26, 1871
113,087	Paton, Robert H., New York, N. Y. Reversible settee	Mar. 28, 1871
115,094	Patont, Felix F., Iberia Parish, La. Cane-stubble shaver	May 23, 1871
117,674	Patric, Charles E., Springfield, Ohio. Upholstery-spring	Aug. 1, 1871
4,337	Patric, John S., Rochester, N. Y. Air-compressing apparatus (Reissue)	April 11, 1871
120,093	Same. Vulcanizing rubber-sacks for stock-pumps	Oct. 17, 1871
120,094	Same. Apparatus for compressing air. (Antedated Oct. 7, 1871)	Oct. 17, 1871
120,095	Same. same. (Antedated Oct. 7, 1871)	Oct. 17, 1871
112,177	Patric, John S., assignor to Hiram Lawton, Rochester, N. Y. Pump	Feb. 28, 1871
121,125	Patric, Lewis, Springfield, Ohio. Windmill. (Antedated Nov. 4, 1871)	Nov. 21, 1871
110,933	Pattce, James H., and Hugh J. Graham, Monmouth, Ill. Steam-vacuum pump	Jan. 10, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,446	Pattee, Lewis C., Lebanon, N. H. Circular-saw mill.....	Dec. 5, 1871
119,947	Patten, Isaac N., Memphis, Tenn. File.....	Oct. 17, 1871
120,317	Patten, Isaac N., and Eli W. Long. (See Long & Patten.)	
121,407	Patterson, Chester R., Pittston, Pa. Suction and blast fan.....	Oct. 24, 1871
119,239	Patterson, James, assignor to William Betts, Scotland. Capsuling bottles.....	Nov. 28, 1871
121,126	Patterson, James H., Glen's Falls, N. Y. Boot and shoe blacking. (Antedated Sept. 23, 1871).....	Sept. 26, 1871
119,472	Patterson, J. Willard, assignor to John Ashcroft and Sarah Ellen Patterson, New York, N. Y. Coffee-pot. (Antedated Nov. 20, 1871).....	Nov. 21, 1871
117,559	Patterson, Newton A., assignor to self and M. L. Patterson, Knoxville, Tenn. Cider-mill. (Antedated Sept. 15, 1871).....	Oct. 3, 1871
119,240	Patterson, Robert, <i>et al.</i> (See Gridley, John B., assignor.)	
117,922	Patterson, Samuel, Newark, N. J. Toy.....	Aug. 1, 1871
111,564	Patterson, Sammel, Berlin Heights, Ohio. Method of bending wood for round boxes.....	Sept. 26, 1871
116,090	Patterson, William, Oneonta, N. Y. Animal-power.....	Aug. 8, 1871
114,193	Patterson, William W., and Edmond Bishop, Pittsburgh, Pa. Ratchet-coupling for barges, &c.....	Feb. 7, 1871
111,144	Pattison, William S., Portsmouth, Ohio. Extension-shank for boring-bits.....	June 20, 1871
111,145	Pattison, Charles S., assignor to Burleigh Rock-Drill Company, North Adams, Mass. Drill-cylinder.....	April 25, 1871
122,051	Pattison, Gurney C., Baltimore, Md. Anchor.....	Jan. 24, 1871
121,467	Patton, William P., assignor of one-half interest to James R. Piper, Harrisburgh, Pa. Meat-chopper.....	Dec. 19, 1871
116,747	Paul, Philipp, Black Earth, Wis. Medical compound or eye-wash.....	Dec. 5, 1871
116,091	Paul, R. C., <i>et al.</i> (See Ryan, Michael G., assignor.)	
119,879	Same..... (See Barnard, John D., assignor.)	
121,957	Paull, Archibald W., and John Morgan, jr., Wheeling, W. Va. Nail-machine.....	July 4, 1871
120,529	Paull, Archie W., and John Morgan, jr., Wheeling, W. Va. Cut-nail machine.....	June 20, 1871
121,808	Paulson, Richard, Washington, D. C. Percussion-cap carrier.....	Oct. 10, 1871
118,047	Payne, Albert E., Jonesville, Mich. Potato-planter.....	Dec. 19, 1871
119,398	Payne, Alvin, Bridgeport, Conn. Metallic cartridge.....	Oct. 31, 1871
4,899	Payne, Edwin W., and Martin P. Warner. (See Warner & Payne.)	Dec. 12, 1871
118,266	Payne, Frederick C., New York, N. Y. Lounge-bedstead. (Antedated Aug. 9, 1871).....	Aug. 15, 1871
117,923	Payne, James M., Benton, Ill. Harrow.....	Sept. 26, 1871
118,551	Payne, Sanford D., Kasota, Minn. Fruit-basket..... (Design).....	May 9, 1871
119,948	Payton, Pat, and Benjamin P. Freeman. (See Freeman & Payton.)	
121,408	Peabody, Washburn, Orono, Me. Ax. (Antedated Aug. 5, 1871).....	Aug. 22, 1871
113,202	Peace, H. W., <i>et al.</i> (See Hankin, William, assignor.)	
113,337	Peacock, Daniel K., assignor to self and Joseph F. Thompson, Little Valley, N. Y. Trace-buckle.....	Aug. 8, 1871
117,675	Peacock, George, Selma, Ala. Mold-board for plows.....	Aug. 29, 1871
115,232	Peacock, George H., Webster, N. Y. Combination-lock.....	Oct. 17, 1871
117,200	Peairs, William H. H., Olathe, Kans. Baling-press.....	Nov. 28, 1871
4,458	Peake, John L., New York, N. Y. Method of scene-shifting for theatrical and analogous purposes.....	Mar. 28, 1871
115,512	Same..... Stop-valve.....	April 4, 1871
121,254	Same..... Steam-heater.....	Aug. 1, 1871
115,095	Peake, John L., and Edward S. Dickinson. (See Dickinson & Peake.)	
115,233	Pear, Isaac S., and Benjamin A. Pettingill. (See Turner, Joshua, assignor.)	
4,640	Pearce, Charles, and Walter McPheeters. (See McPheeters & Pearce.)	
4,641	Pearl, John, New York, N. Y. School-desk.....	May 23, 1871
110,934	Pearl, Adolph, Brooklyn, N. Y. Mold for shaping cigar-bunches.....	July 18, 1871
122,052	Pearl, Adolph, assignor to Henry Pearl, New York, N. Y. Apparatus for pressing, shaping, and drying cigar-bunches..... (Reissue).....	July 4, 1871
116,481	Pearl, Ahira E., Mansfield, Conn. Compound for exterminating vermin.....	May 30, 1871
113,557	Pearl, Charles S. (See Ford, Frank M., assignor.)	
116,989	Pearl, Eugene T., Milwaukee, Wis. Crutch.....	Nov. 28, 1871
117,452	Pearl, Oliver, Lawrence, Mass. Guide-board for spinning-machines.....	May 23, 1871
114,965	Same..... Spindle-step and cover for spinning-machines.....	May 23, 1871
111,081	Pears, John P., Pittsburgh, Pa. Mold for lager-beer glasses..... (Design).....	Feb. 7, 1871
118,048	Same..... same..... (Design).....	Feb. 7, 1871
119,785	Pearsall, S. J., and Silas P. Briggs, Saratoga Springs, N. Y. Spring for wagons and carriages.....	Jan. 10, 1871
116,481	Pearse, John B., Saratoga Township, Pa. Plant for the manufacture of Bessemer steel.....	Dec. 19, 1871
113,557	Pearson, Alfred, Assonet, Mass. Apparatus for sizing the initial-coils of cops in spinning-machines.....	June 27, 1871
116,989	Pearson, Francis R., <i>et al.</i> (See Stead, Holcroft & Pearson.)	
117,452	Pearson, Henry G., New York, N. Y. Metal screw and nut.....	April 11, 1871
114,965	Pearson, Preston C., assignor to self and T. E. C. Brinly, Louisville, Ky. Fence.....	July 11, 1871
111,081	Pearson, Richard, Allegheny City, Pa. Lamp-chimney cleaner.....	July 25, 1871
118,048	Pearson, William Everett, assignor to self and James C. Wilson, East Boston, Mass. Boiler-furnace draught-regulator.....	May 16, 1871
119,785	Pease, Claudius A., Astoria, N. Y. Machine for the manufacture of paper carpet-linings.....	Jan. 17, 1871
116,481	Pease, Dan, Floyd, N. Y. Smut-mill.....	Aug. 15, 1871
113,557	Pease, Julius A., Catskill, N. Y. Candle-burner.....	Oct. 10, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Pease, Oscar S., and George R. Metten. (<i>See Metten & Pease.</i>)	
	Peck, Eben, and Gilbert J. Bogert. (<i>See Myers & Eunson, assignors.</i>) (Dis- claimer.)	
	Peck, Joseph C., <i>et al.</i> (<i>See Davis, Blakeslee & Peck.</i>)	
	Peck, Joseph R., and William Hoge. (<i>See Hoge & Peck.</i>)	
116,482	Peck, Napoleon B., Woonsocket, R. I. Bracket for warp-creels.....	June 27, 1871
	Peck, Walter L. and Clarence L., <i>et al.</i> (<i>See Anderson, James H., assignor.</i>) (Two cases.)	
	Peck, William A., jr., <i>et al.</i> (<i>See Hoggson, Samuel J., assignor.</i>)	
120,318	Peckham, Edgar, Antwerp, N. Y. Furnace for the manufacture of iron.....	Oct. 24, 1871
115,513	Peckham, John, New Haven, Conn. Buckle	May 30, 1871
114,336	Peckham, John S., Utica, N. Y. Cooking-stove and range	May 2, 1871
112,374	Pedder, John, and George Abel, West Pittsburgh, Pa. Machine for pointing blanks for cultivator-teeth	Mar. 7, 1871
118,482	Peddler, John, and George Abel, Temperanceville, Pa. Machine for grinding circular saws	Aug. 29, 1871
117,811	Peeler, Charles W., Chicago, Ill., and Norman C. Johnson, Springfield, Mass. Manufacture of seamless shoes.....	Aug. 8, 1871
113,693	Peelot, David, Johnstown, Pa. Self-recording barometer.....	April 11, 1871
120,664	Peet, Samuel J., Boston, Mass. Valve. (Antedated Oct. 21, 1871).....	Nov. 7, 1871
111,966	Peet, Samuel J., and Daniel Sawyer, assignors to Samuel J. Peet, Boston, Mass. Device for grinding the flat faces of valve-seats. (Antedated Feb. 11, 1871).....	Feb. 21, 1871
121,542	Peet, Samuel J., and Joseph W. Willis, assignors to Samuel J. Peet, Boston, Mass. Process of constructing water and steam valves.....	Dec. 5, 1871
112,485	Peiffer, Josiah, and Samuel Richards, Valonia, Pa. Apparatus for ageing whisky and other spirits	Mar. 7, 1871
117,924	Peirce, Charles R., assignor to George J. Naylor, Philadelphia, Pa. Vegetable- grater	Aug. 8, 1871
112,625	Peirce, Charles W., jr., Bristol, Pa. Skirt	Mar. 14, 1871
116,862	Peirce, George W., Boston, Mass. Bracket.....	July 11, 1871
120,665	Same.....Bracket and towel-rack combined	Nov. 7, 1871
117,676	Peirce, Horatio L., Taunton, Mass. Spinning-ring	Aug. 1, 1871
121,543	Peirce, Isaac Newton, Philadelphia, Pa. School-desk.....	Dec. 5, 1871
	Peirce, Otis W., and Joseph R. Wilber. (<i>See Wilber & Peirce.</i>)	
121,809	Peirce, Thomas L. and George, New Providence, Iowa. Seeder	Dec. 12, 1871
117,201	Peirce, Thomas W., Minneapolis, Minn. Hay rake and fork.....	July 18, 1871
114,594	Peirce, William H., Bangor, Me. Meat and vegetable chopper	May 9, 1871
113,446	Pelisse, Augustus, and George W. Stout, Newark, N. J. Machine for pouncing hats.....	April 4, 1871
113,920	Pell, Henry W., Rome, N. Y. Wash-boiler	April 18, 1871
115,234	Same.....same.....	May 23, 1871
119,399	Same.....Clothes-washer	Sept. 26, 1871
112,844	Pell, James D., New York, N. Y. Animal-trap	Mar. 21, 1871
113,338	Pelton, William Tilden, New York, N. Y. Portable apparatus for preserving wood.....	April 4, 1871
	Pence, Jason P., and John Knull. (<i>See Knull & Pence.</i>)	
	Pendleton, Edward B. (<i>See Turner & Stevens, assignors.</i>)	
	Same.....(<i>See Switzer, John J., assignor.</i>)	
120,594	Pennell, Oscar J., and George Zimmer, Wampersport, Pa. Dovetailing-machine.	Nov. 7, 1871
5,038	Pennell, Thomas, assignor to Bigelow Carpet Company, Melrose, N. Y. Car- pet.....(Design).....	June 20, 1871
5,119	Same.....Morrisania, N. Y. Carpet-pattern.....(Design).....	July 11, 1871
	Penney, Frank L. (<i>See Whitney, Alfred, assignor.</i>)	
120,770	Penney, William A., assignor to self and Samuel R. Horne, Morrisville, N. C. Gate	Nov. 7, 1871
	Penniman, Nicholas G., and Josias Pennington, jr. (<i>See Sneider, Charles, as- signor.</i>)	
116,628	Pennington, Alexander W., assignor to Sarah A. Pennington and Chauncey Perry, Rochester, N. Y. Sash-holder.....	July 4, 1871
	Pennington, Josias, jr., and Nicholas G. Penniman. (<i>See Sneider, Charles, as- signor.</i>)	
113,088	Pennington, Thomas D., assignor to self and R. G. Anderson, Forsyth, Ga. Horse-power.....	Mar. 28, 1871
4,301	Penniston, George W., North Vernon, Ind. Cotton and hay press..(Extension).. Nov. 25, 1871	
116,483	Pennock, Abraham L., Philadelphia, Pa. Steam-generator.....(Reissue).. Mar. 14, 1871	
113,558	Same.....Mechanism for operating ventilators.....	June 27, 1871
111,565	Pennoyer, Oliver A., Washington, D. C. Pen-holder.....	April 11, 1871
	Penny, Benjamin F., assignor to Thaddeus B. Curtis, Rochester, N. Y. Arti- ficial fuel.....	Feb. 7, 1871
120,595	Penny, Charles E., assignor to self and John McCartney, Fort Wayne, Ind. Insect-trap	Nov. 7, 1871
119,400	Penrose, William H., Fort Lyon, Mont. Military equipment	Sept. 26, 1871
120,530	Same.....Combined tent and cot. (Antedated Sept. 30, 1871).....	Oct. 31, 1871
114,595	Pentland, Alexander C., Philadelphia, Pa. Hot-water heating-apparatus.....	May 9, 1871
111,566	Pentz, Albert D., New York, N. Y. Fountain blacking-brush	Feb. 7, 1871
122,276	Pepper, Nathaniel M., Danbury, N. C. Tobacco and other press	Dec. 26, 1871
110,998	Percival, George Gilman, assignor to Isabel B. Percival, Waterville, Me. Ap- paratus for extracting essential oils.....	Jan. 17, 1871
120,596	Percival, George Gilman, Waterville, Me. Process and apparatus for extract- ing essential oils. (Antedated Nov. 4, 1871).....	Nov. 7, 1871
121,893	Percival, Thomas H., Harper's Ferry, W. Va. Mechanical movement	Dec. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,966	Peregoy, Dabney N. M., Elizabethton, Tenn. Flour-bolt	May 16, 1871
114,967	Same..... Mill stone-dress	May 16, 1871
110,784	Peregoy, Henry, Mount Carmel, Md. Milk-house	Jan. 3, 1871
112,276	Peregoy, William B., Baltimore, Md. Fire-escape ladder	Feb. 28, 1871
113,089	Perfater, George S., Camp Point, Ill. Churn	Mar. 28, 1871
117,560	Perkins, Charles H., assignor to American Horse-Nail Company, Providence, R. I. Device for pointing horseshoe-nails	Aug. 1, 1871
119,402	Same..... Apparatus for pointing horseshoe-nails	Sept. 26, 1871
122,277	Perkins, Dabney N. M., assignor to self, Robert I. Lusk, and Lorenzo D. Poteet, Johnson City, Tenn. Journal bearing and lubricating device	Dec. 26, 1871
119,401	Perkins, Francis B., assignor to self and Campbell, Whittier & Co., Boston, Mass. Elevator	Sept. 26, 1871
113,559	Perkins, George C., Hartford, Conn. Frame for wire mattresses	April 11, 1871
121,810	Perkins, George F., San Francisco, Cal. Pendent reading-desk	Dec. 12, 1871
113,716	Perkins, James, et al. (See Barnstead, James T., assignor.)	(Reissue.)
122,130	Perkins, James, assignor to self and Jacob Brandt, jr., Baltimore, Md. Surface blow-off pipe for boilers	April 11, 1871
112,375	Perkins, James, Peabody, Mass., and George L. Newcomb, Salem, Mass. Machine for removing grease from leather	Dec. 26, 1871
112,733	Perkins, James E., San Francisco, Cal. Bale-tie	Mar. 7, 1871
112,734	Perkins, Jesse A., et al. (See Hyatt & Perkins.)	
4,848	Perkins, N. S. C., and M. P. Smith. (See Reding, Royal, assignor.)	
120,096	Perkins, Sandford A., Topsham, Me. Machine for grinding wood-pulp	Mar. 14, 1871
120,096	Same..... Wood-pulp machine	Mar. 14, 1871
120,096	Perkins, Stephen G. (See Clark, Alexander, assignor.)	
120,096	Perkins, William A., Salem, Mass. Saw-filing vise	(Design) ..
120,096	Same..... (See Pratt, Albert W., assignor.)	(Reissue.)
120,096	Perky, Henry D., Washington, D. C. Making rubber stereotypes	Oct. 17, 1871
120,096	Perley, Charles, New York, N. Y. Compound capstan for ships. (Extension) ..	July 19, 1871
112,486	Perley, Charles A., et al. (See Hastings, Emory B., assignor.)	
4,908	Perrault, Louis A., assignor to self and Joseph Huber, Natchez, Miss. Combined cotton and corn planter	Mar. 7, 1871
4,909	Perrin, Edward, assignor to W. & I. Sloane, England. Carpet-pattern. (Design) ..	May 16, 1871
5,446	Perrin, Edward, assignor to Joseph Wild, England. Carpet-pattern. (Design) ..	May 16, 1871
116,863	Perrin, Edward, assignor to Joseph Wild & Co., England. Carpet-pattern. (Design) ..	Dec. 19, 1871
112,626	Perrin, Marie Eulalie, Montreal, Canada. Medical compound for treating diseases of the lungs, chest, &c.	July 11, 1871
112,626	Perrin, Parley I., and Joseph L. Hewes, assignors to Parley I. Perrin, Taunton, Mass. Machine for tapping boilers	Mar. 14, 1871
119,786	Perrine, Alfred T., Boston, Mass. Heel for boots and shoes	Oct. 3, 1871
118,267	Perrine, John D., and John D. Phyfe. (See Phyfe & Perrine.)	
117,561	Perrini, George P., Richmond, Va., and James E. Boyle, New York, N. Y. Hydrant	(Extension) ..
101,658	Perrow, Daniel B., and Isaac Martin. (See Martin & Perrow.)	June 7, 1871
114,337	Perry, Albert and George W. Steam-pump	Dec. 5, 1871
4,799	Perry, Chauncey, and Sarah A. Pennington. (See Pennington, Alexander W., assignor.) ..	
115,351	Perry, Edward L., assignor to Combination Rubber Company, New York, N. Y. Rubber play-pipe for hose	May 2, 1871
115,351	Perry, Edward L., and John Greacen, jr. (See Greacen & Perry.)	
115,351	Perry, Edwin Hathaway, Boston, Mass. Watch-plate	(Design) ..
115,351	Same..... Stem-winding watch	April 11, 1871
115,351	Same..... Stem-winding watch	May 30, 1871
119,786	Perry, Elkanah S., and Robert H. Dowling. (See Dowling & Perry.)	
118,267	Perry, Francis L., Canandaigua, N. Y. Cultivator	Oct. 10, 1871
117,561	Perry, George L., Berlin, Wis. Clod-fender	Aug. 22, 1871
117,562	Perry, Henry, et al. (See Duxon & Perry.)	
121,958	Perry, John G., Kingston, R. I. Hay-tedder	Aug. 1, 1871
115,096	Same..... same	Aug. 1, 1871
115,096	Same..... same	Dec. 19, 1871
119,949	Perry, John P., Yarmouth Port, Mass. Key-board	May 23, 1871
115,635	Perry, John S., and Andrew Dickey, Albany, N. Y. Cooking-stove	Oct. 17, 1871
120,319	Perry, Joseph R. and Samuel R., Wilkesbarre, Pa. Reed-organ bellows	June 6, 1871
113,792	Perry, Oliver H., and William H. Allen, Beloit, Wis. Bridge	Oct. 24, 1871
119,880	Perry, Previze A., Perth Amboy, N. J. Grain-binder	April 18, 1871
117,453	Perry, William L., Jonesville, S. C. Machine for fitting and boring fellocs	Oct. 10, 1871
115,514	Perry, William V., Beaver Dam, Wis. Car-coupling	July 25, 1871
118,147	Peteler, Alois, New Brighton, N. Y. Dumping-car	May 30, 1871
116,629	Petera Adolph, Austria. Extracting mercury from its ores	Aug. 15, 1871
4,408	Peters, Charles R., and William P. Taylor, San Francisco, Cal. Tilting-chair	July 4, 1871
121,959	Peters, George M., Columbus, Ohio. Adjustable metallic dasher for vehicles. (Reissue) ..	May 30, 1871
111,146	Same..... Whip-socket. (Antedated Dec. 9, 1871)	Dec. 19, 1871
111,472	Peters, Isaac S., Marshall, Mich. Tube-extractor	Jan. 24, 1871
122,053	Peters, Isaac S., Silas, and William B. (See Warren, Edward, assignor.)	
122,053	Peters, Jacob, assignor to Simon J. Stine, Lebanon, Pa. Boring and mortising machine	Jan. 31, 1871
122,053	Peters, Jacob G. (See Stoll, Michael, assignor.)	
122,053	Peters, John, Haverstraw, N. Y. Steam-boiler float-valve	Dec. 19, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Peters, Norris. (<i>See Rehn, Isaac, assignor.</i>)	
121,960	Peters, Philip B., Marietta, Ohio. Water cut-off	Dec. 19, 1871
119,172	Petersen, Charles J. C., Port Chester, N. Y. Harvester	Sept. 19, 1871
121,961	Same. Device for supporting pipe-cores	Dec. 19, 1871
122,054	Petersen, Herman N., Peoria, Ill. Flour-bolt	Dec. 19, 1871
	Peterson, James, and Peter Spreckles. (<i>See Spreckles & Peterson.</i>)	
	Peterson, Richard, and David Stuart. (<i>See Bridge, Lewis, assignor.</i>)	
	Same. (<i>See Stuart & Bridge, assignors.</i>) (Reissue.)	
120,996	Peting, John F., assignor to self and Joseph Weidner, Rochester, Ind. Prepared glue	Nov. 14, 1871
112,845	Petit, John Meek, Rochester, Ind. Preparing seed-corn	Mar. 21, 1871
111,567	Petre, N., New York, N. Y. Latch-lock	Feb. 7, 1871
121,410	Petrie, Horace, Chicago, Ill. Decorating in gilt upon japanned metal surfaces	Nov. 28, 1871
	Petrie, James A., <i>et al.</i> (<i>See Martin, Parrish & Petrie.</i>)	
	Petrikan, Reuben Winslow. (<i>See Winslow, Reuben, assignor.</i>)	
	Pettee, Simon E. (<i>See Rupp, John C., assignor.</i>)	
118,049	Pettengill, Charles B., Hebron, Maine. Reversible side-hill plow	Aug. 15, 1871
120,394	Petterson, Nils B., McGregor, Iowa. Dough-board	Oct. 31, 1871
119,531	Pettit, James A., Philadelphia, Pa. Thimble and thread-cutter	Oct. 3, 1871
116,864	Pettingell, Walter J., Lowell, Mass. Chimney-cap	July 11, 1871
	Pettingell, William, and William Henry Fowler. (<i>See Fowler & Pettingell.</i>)	
	Pettingill, Benjamin A., and Isaac S. Pear. (<i>See Turner, Joshua, assignor.</i>)	
114,034	Pettit, James D., Rochester, Ind. Scaffolding	April 25, 1871
121,409	Same. Wagon-body	Nov. 28, 1871
	Pettit, James D., and Samuel Hefley. (<i>See Hefley & Pettit.</i>)	
117,563	Pettit, Thomas J., assignor to self and Thomas H. Combs, Brooklyn, N. Y. Hose-clamp	Aug. 1, 1871
4,238	Pettit, William, Philadelphia, Pa. Railway-car truck. (Reissue)	Jan. 24, 1871
111,674	Pettitt, Edwin, England. Feeding-device for carding and other preparing-machines	Feb. 7, 1871
120,320	Peyroux, Arthur B., New Orleans, La. Cloth-strip bristles	Oct. 24, 1871
117,202	Peyton, Joseph I., assignor to self and J. E. F. Holmead, Washington, D. C. Band-tie	July 18, 1871
113,339	Pfaff, Ernest Constantine, assignor to Dobson & Barlow, Saxony. Apparatus for stripping the top-flats of carding-machines	April 4, 1871
	Pfanner, Jacob P. (<i>See Wood & Morrison, assignors.</i>)	
114,035	Pfau, John L., jr., Quincy, Ill. Hot-air furnace	April 25, 1871
121,894	Pfeifer, Charles, Saint Louis, Mo. Bridge	Dec. 12, 1871
115,888	Pfeifer, John, Philadelphia, Pa. Coal-scuttle	June 13, 1871
	Pfeifer, Peter, Durhamville, N. Y. Horse hay-rake	Oct. 3, 1871
4,533	Pfeil, John C., Arenzville, Ill. Plow (Reissue)	Aug. 29, 1871
112,487	Pfeger, Solomon, assignor to self and James Shoemaker Pfeifer, Reading, Pa. Faucet	Mar. 7, 1871
117,677	Pfouts, David, Empire Mills, near Winesburgh, Ohio. File-handle	Aug. 1, 1871
118,814	Phares, John J., Whitestown, Ind. Window-shade	Sept. 12, 1871
121,411	Phelps, Ebenezer W., Elizabeth, N. J. Mode of balancing pulleys	Nov. 28, 1871
112,846	Phelps, Edward B., and James P. McLean, Brooklyn, N. Y. Broiler	Mar. 21, 1871
	Phelps, Frederick A., and William Watts. (<i>See Watts & Phelps.</i>)	
110,675	Phelps, George M., assignor to the Western Union Telegraph Company, Brooklyn, N. Y. Printing-telegraph	Jan. 3, 1871
115,769	Phelps, Ira M., Chicago, Ill. Furnace for oxidizing ores	June 6, 1871
116,865	Same. Apparatus for amalgamating gold and silver	July 11, 1871
115,515	Phelps, James Fisher, Huntsville, Ala. Grate	May 30, 1871
	Phelps, John M. (<i>See Myers, Valentine, assignor.</i>)	
122,055	Phelps, Myron D., Bristolville, Ohio. Lightning-rod	Dec. 19, 1871
121,412	Phelps, Samuel W., Sandusky, Ohio. Fruit-box	Nov. 28, 1871
121,413	Phelps, William E., Glenwood, Ill. Coal-chute	Nov. 28, 1871
	Philadelphia Patent and Novelty Company. (<i>See Goodes, Ebenezer A., assignor.</i>)	
120,771	Philip, Jacob, Germany. Manufacture of artificial sulphate of baryta	Nov. 7, 1871
112,735	Philip, Peter, Stockport, N. Y. Roll for husking corn	Mar. 14, 1871
119,173	Philippi, Pompeius, Beardstown, Ill. Drill-chuck	Sept. 19, 1871
	Phillips, Samuel J. (<i>See Croll, Sylvester, assignor.</i>)	
110,785	Phillips, William G., Newport, Del. Step-ladder	Jan. 3, 1871
120,395	Phillips, William J., assignor to J. Bernard Brinton, Philadelphia, Pa. Fire-alarm and police signal-box	Oct. 31, 1871
119,241	Phillippi, Alexander, Saint Louis, Mo. Grain-binder	Sept. 26, 1871
112,277	Phillips, Alexander C., Chicago, Ill. Show-case for spool-threads	Feb. 28, 1871
111,775	Phillips, Enos B., Cambridge, Mass. Supporting-core	Feb. 14, 1871
117,678	Phillips, George, assignor to the Burleigh Rock-Drill Company, Alleghany, Cal. Rock-drilling engine	Aug. 1, 1871
113,203	Phillips, George B., assignor to self, Adrian M. Connell, and James V. Harbottle, Poughkeepsie, N. Y. Rock-drill	Mar. 23, 1871
117,679	Phillips, George B., assignor to Joshua E. Hall, George J. Levake, William Norville, and A. Ward Fenton, Cleveland, Ohio. Wrench	Aug. 1, 1871
117,564	Phillips, George W., Fresh Pond, N. Y. Button	Aug. 1, 1871
112,376	Phillips, James, Chicago, Ill. Lining walls with felt, &c.	Mar. 7, 1871
120,321	Phillips, John, Chicago, Ill. Machine for bending wood	Oct. 24, 1871
	Phillips, John, <i>et al.</i> (<i>See Lacey, Edward, assignor.</i>)	
	Same. (<i>See Gustafson, Gustaf, assignor.</i>)	
	Phillips, J. C. (<i>See Smith, George C., assignor.</i>)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,848	Phillips, Josiah S., San Francisco, Cal. Amalgamating the precious metals and preventing the loss of mercury	May 16, 1871
117,322	Phillips, Merrill G., and James E. Stacy. (See McPherson, William H., assignor.)	
111,967	Phillips, Moreau, assignor to self and Thomas Handy, Springfield, Ill. Loading and dumping machine	July 23, 1871
114,036	Phillips, Phineas W., assignor to James F. Almy, Salem, Mass. Curtain-fixture.	Feb. 21, 1871
120,997	Same..... same	April 25, 1871
121,544	Phillips, Phineas W., Salem, Mass. Curtain-fixture	Nov. 14, 1871
113,964	Phillips, Robert C., Cincinnati, Ohio. Wooden pavement	Dec. 5, 1871
119,280	Phillips, Russell, Boston, Mass. Vise	Sept. 26, 1871
120,212	Same..... Carpenters' plane	Oct. 24, 1871
114,194	Phillips, William Eaton, Silver City, Nev. Lubricator	April 25, 1871
120,322	Phillips, William H., Staunton, Ind. Self-operating gate	Oct. 24, 1871
113,964	Phillips, William L., Normal, Ill. Stove-pipe drum	April 11, 1871
117,107	Phillips, William S., Chicago, Ill. Spool-thread case	July 18, 1871
113,447	Phinney, Hugh M., Boston, Mass. Hot-air register	April 4, 1871
120,998	Phinney, Sylvanus C., assignor to S. C. and J. C. Phinney, Stoughton, Mass. Cutting boot and shoe counters	Nov. 14, 1871
113,921	Phinney, Theodore William, Newport, R. I. Earth-mattress	April 18, 1871
118,639	Phipps, William, assignor to self and James D. Pierce, Milwaukee, Wis. Water cut-off	Aug. 29, 1871
115,889	Phipps, William H., Southborough, Mass. Nut-lock	June 13, 1871
121,062	Phœbus, Harrison. (See Wright, William M., assignor.)	
	Phœbus, Thomas B., assignor of one-half interest to John F. Titus, Memphis, Tenn. Smoke-stack for engines, &c.	Nov. 21, 1871
	Phoenix Iron Company. (See Walters, George, assignor.)	
	Phoenix Manufacturing Company, et al. (See Nimmo, George, assignor.) (Re-issue.)	
114,037	Phyfe, John D., and John D. Perrine, New York, N. Y. Shutter-fastener	April 25, 1871
120,531	Picaluga, Antoine, France. Apparatus for manufacturing sirup or cream and soda-water	Oct. 31, 1871
4,558	Pickens, Pulaski B., New York, N. Y. Collar-box cover. (Design)	Jan. 3, 1871
	Pickering, Arthur, et al. (See Nimmo, George, assignor.) (Reissue.)	
120,532	Pickering, George, Janesville, Wis. Machine for turning wood	Oct. 31, 1871
	Pickering, James, et al. (See Gardner, Lowe, Wood & Pickering.)	
120,164	Pickering, Joseph, assignor to self and Joseph M. Pickering, Philadelphia, Pa. Brush-making machine	Oct. 24, 1871
4,524	Pickles, John, assignor to James S. Sturgis and Thomas Keech, England. Manufacture of paper-stock from certain plants	Aug. 22, 1871
113,340	Picot, Leonce, Hudson City, N. J. Comb	April 4, 1871
119,403	Pierce, Charles E., New York, N. Y. Alarm-lock	Sept. 26, 1871
	Pierce, E. B. (See Duff, James, assignor.) (Reissue.)	
114,338	Pierce, George, Boston, Mass. Stop-cock valve	May 2, 1871
19,474	Pierce, George R., Grand Rapids, Mich. Breech-loading fire-arm	Oct. 3, 1871
120,323	Same..... Metallic cartridge	Oct. 24, 1871
115,235	Pierce, George V., Jersey City, N. J. Extension-bustle	May 23, 1871
	Pierce, James D. (See Phipps, William, assignor.)	
112,178	Pierce, James D., assignor to self and John B. Smith, Milwaukee, Wis. Stove-pipe thimble	Feb. 28, 1871
	Pierce, John N. (See Foss, John F., assignor.)	
	Pierce, Joseph A. (See Sturgis, Albert H., assignor.)	
115,981	Pierce, Joseph C., Bridgeport, Ill. Wheel for vehicles	June 13, 1871
118,148	Pierce, Josiah, and Augustin B. Curtis, New Haven, Conn. Spoke-lathe	Aug. 15, 1871
120,999	Pierce, Mason R., New York, N. Y. Drain-pipe machine	Nov. 14, 1871
121,193	Same..... Woodstock, N. Y. Hollow building-block	Nov. 21, 1871
121,063	Pierce, Osborne J., Worcester, Mass. Roofing	Nov. 21, 1871
112,377	Pierce, Samuel, Boston, Mass. Cooking-stove	Mar. 7, 1871
	Pierce, Thomas E., and David Reed. (See Reed & Pierce.)	
	Pierce, William W., and David W. McConnell. (See McConnell & Pierce.)	
111,243	Pierpent, Charles H., assignor to self and P. J. Clark, West Meriden, Conn. Drawer-pull	Jan. 24, 1871
110,677	Pierpont, Charles L., Durand, Wis. Spark-arrester	Jan. 3, 1871
4,931	Pierpont, Charles L., assignor to Samuel W. Dunn, Salem, N. J. Floor oil-cloth pattern	May 23, 1871
4,932	Same..... Floor oil-cloth pattern	May 23, 1871
5,152	Same..... same	Aug. 1, 1871
5,153	Same..... same	Aug. 1, 1871
5,154	Same..... same	Aug. 1, 1871
120,896	Pierson, James S., New York, N. Y. Frame for diking streets	Nov. 14, 1871
122,191	Pies, Joseph, Sparland, Ill. Corn-planter	Dec. 26, 1871
120,666	Pike, Charles F., Providence, R. I. Apparatus for cooling and preserving	Nov. 7, 1871
120,667	Same..... Smoke and spark arrester and consumer	Nov. 7, 1871
	Pike, John N. (See Savary, George T., assignor.)	
117,108	Pike, Ozi M., Chicopee, Mass. Steam-engine	July 18, 1871
114,596	Pile, George, assignor of one-half interest to W. D. Haynes, Blountsville, Tenn. Tanning	May 9, 1871
115,636	Pilkington, Joseph W., assignor to self and Charles H. Cole, Bridgeport, Conn. Toy-carriage	June 6, 1871
114,706	Pillard, Oliver E., assignor to Frederic H. North, New Britain, Conn. Permutation-lock	May 9, 1871
120,396	Same..... Permutation-lock	Oct. 31, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,637	Pillsbury, Joseph L., Columbus, Ohio. Hydrant	June 6, 1871
114,849	Pillsbury, Joseph L., Columbus, and John S. Shorb, Canton, Ohio. Hydraulic pressure-alarm	May 16, 1871
	Pim, Jacob, <i>et al.</i> (See St. John, Roswell H., assignor.)	
112,955	Pinekey, Stephen R., New York, N. Y. Lifter for fruit-jars	May 21, 1871
	Pindar, James H., <i>et al.</i> (See Melvin, Jerome B., assignor.)	
	Pine, Benjamin F., <i>et al.</i> (See Hannen, Henry, assignor.)	
	Pine Valley Company. (See Ney, Elemir J., assignor.) (Two cases.) (Design.)	
	Pinkham, George F. (See Tirrell, Jacob P., assignor.) (Two cases.)	
111,244	Pinkham, Joseph, New Market, N. H. Plow	Jan. 24, 1871
111,147	Piper, Edwin S., Rochester, N. Y. Machine for grinding hand-saws	Jan. 24, 1871
	Piper, James R. (See Patton, William P., assignor.)	
113,922	Pipes, James., Ripley, W. Va. Forging-machine	April 18, 1871
121,811	Pirring, George and Felix, Chicago, Ill. Brush	Dec. 12, 1871
111,148	Pirz, Anthony, assignor to self and Henry Torstrick, Long Island, N. Y. Composition for coating wooden structures to protect them against fire. (Antedated Jan. 7, 1871.)	Jan. 24, 1871
118,552	Pitcher, Hiram, assignor to self and H. and G. O. Trowbridge, Fond du Lac, Wis. Auger	Aug. 29, 1871
117,565	Pitcher, Jonathan E., Louisville, Ky. Combined chair and bed	Aug. 1, 1871
117,203	Pitt, James, Joseph, Edward, and William, assignors to selves and Charles Keighley, England. Sewing-machine	July 18, 1871
115,516	Pittenger, David F., Trenton, N. J. Motive-power for sewing-machines	May 30, 1871
116,092	Pittman, George W., assignor to Samuel S. Thursby, and Todd & Rafferty, Brooklyn, N. Y. Hemp-hatcheling machine	June 20, 1871
121,414	Pittman, George W., Dartmouth, Nova Scotia. Hemp-drawing machine	Nov. 28, 1871
118,742	Pitts, Aurelius V., Chicago, Ill. Shaft-coupling. (Antedated Aug. 17, 1871.)	Sept. 5, 1871
120,826	Same. Thrashing-machine. (Antedated Oct. 27, 1871.)	Nov. 14, 1871
121,415	Pitts, James, Millville, Mass., Robert Aldrich, Slatersville, R. I., and Edwin T. Marble, Worcester, Mass. Flock-cutting machine	Nov. 28, 1871
119,713	Pitts, Joseph Nelson, and John E. Russell, Niagara Falls, N. Y. Fire-alarm. (Antedated Sept. 30, 1871.)	Oct. 10, 1871
	Pitts, Seth G., and William F. Niles. (See Niles & Pitts.)	
119,404	Pitts, Warren M., Holden, Mo. Wheel-cultivator	Sept. 26, 1871
117,323	Pitzler, James, New York, N. Y. Needle-wrapper	July 23, 1871
117,324	Same. same	July 23, 1871
116,349	Place, Charles C., Boston, Mass. Gas-regulator	June 27, 1871
	Place, George, <i>et al.</i> (See Hunt, George W., assignor.)	
4,525	Plagge, Charles, assignor to self and Theodore C. Glazier, New York, N. Y. Ice-machine	Aug. 22, 1871
	Plant, A. Clinton. (See Schliecker, Peter F., assignor.)	
	Plant, Amzi P., <i>et al.</i> (See Fuller, George H., assignor.)	
118,879	Plant, Ebenezer H., Plantsville, Conn. Die for forming the heads of screw eye-bolts	Sept. 12, 1871
115,097	Plantz, William A., Iowa Falls, Iowa. Barrel-car	May 23, 1871
	Plastic Slate-Roofing Joint Stock Company. (See Potter, William L., assignor.) (Disclaimer.)	
118,149	Platt, Albert L., and Isaiah W. Wilmeth, Bloomington, Ill. Ice-cream freezer	Aug. 15, 1871
117,454	Platt, Alfred C., Sandusky, Ohio. Apparatus for accumulating power	July 25, 1871
118,640	Platt, Clark M., Waterbury, Conn. Eyelet for attaching buttons to textile fabrics	Aug. 29, 1871
121,000	Same. Button	Nov. 14, 1871
122,131	Same. Tin-lined iron pipe	Dec. 26, 1871
111,675	Platt, David B., Jeffersonville, Ind. Combined grain-drill and corn-cultivator	Feb. 7, 1871
117,109	Platt, Edwin, Charleston, S. C. Dredging-machine	July 18, 1871
	Platt, Francis W. (See Russell, Edwin, assignor.)	
	Platt, Francis W., and Edwin Russell. (See Russell & Platt.)	
117,455	Platt, Nathan C., Salisbury, N. Y. Process of separating tannin from solutions	July 25, 1871
115,890	Platt, Seabury B., Derby, Conn. Lamp-burner	June 13, 1871
118,743	Platt, William S., Waterbury, N. Y., and George J. Capewell, Cheshire, N. Y., assignors to William S. Platt and Samuel M. Porter. Machine for attaching buttons	Sept. 5, 1871
119,242	Pleasanton, Augustus L., Philadelphia, Pa. Accelerating the growth of plants and animals	Sept. 26, 1871
122,278	Plenkharf, James, Columbus, Ohio. Slide for extension-tables	Dec. 26, 1871
4,292	Plimpton, James L., New York, N. Y. Skate (Division A, reissue)	Mar. 7, 1871
4,293	Same. same (Division B, reissue)	Mar. 7, 1871
121,812	Plouff, John W., assignor to Israel C. Mayo, Gloucester, Mass. Wash-boiler	Dec. 12, 1871
	Plumb & Burdick. (See Burdick, Orrin C., assignor.)	
119,881	Plumb, Charles, assignor to self and Robert Mitchell, Montreal, Canada. Smoke-consumer	Oct. 10, 1871
115,236	Plumb, Hiram, assignor to William A. Drown, jr., and Edward Evans, Philadelphia, Pa. Car-coupling	May 23, 1871
	Plume & Atwood Manufacturing Company. (See Atwood, Lewis J., assignor.) (Two cases.)	
	Plumer, William, Boston, Mass. Rock-channeling machine. (Extension of No. 3,368.)	Sept. 23, 1871
	Same. Rock-channeling machine. (Extension of No. 3,369.)	Sept. 23, 1871
	Plumer, William, and E. G. Lamson, assignees of William Plumer, Boston, Mass. Rock-channeling machine. (Disclaimer filed.)	Sept. 21, 1871
119,533	Plummer, John E., Binghamton, N. Y. Finishing-jack for shoes, &c.	Oct. 3, 1871
118,969	Plummer, Osgood, Worcester, Mass. Harness-operating mechanism for looms	Sept. 12, 1871
118,970	Same. Towel-rack	Sept. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,850	Plummer, Starke A., <i>et al.</i> (See Marable, Thomas E., assignor.)	
117,566	Plunket, Thomas J., New York, N. Y. Type-setting machine.	May 16, 1871
116,990	Plunket, Thomas J., assignor to Victor E. Manger, New York, N. Y. Gripper for printing-presses	Aug. 1, 1871
119,174	Plunkett, Jules, New York, N. Y. Cap for billiard-table bolt-heads.	July 11, 1871
	Plymate, Franklin H., deceased, by Alexander Plymate, administrator, Blue Earth County, Minn. Fan-mill	
	Plympton, George S., <i>et al.</i> (See North, John, assignor.)	Sept. 19, 1871
110,786	Poe, Fielding W., jr., Vandalia, Ill. Corn-planter	Jan. 3, 1871
113,923	Poitras, Zephire, assignor to C. H. Merrill, F. G. Tanner, and A. W. Merrill, Chicago, Ill. Fountain-brush	April 18, 1871
	Poland, Samuel W., and Frederick C. Leland. (See Leland & Poland.)	
	Polk, George T., and Godfrey Brenner. (See Brenner & Polk.)	
111,968	Pollard, James E., Franklin City, Mass. Felted fabric	Feb. 21, 1871
4,356	Pollard, William H., assignor to the Goulds Manufacturing Company, Seneca Falls, N. Y. Pump-valve	April 25, 1871
117,925	Same. Gas-pump	Aug. 8, 1871
121,468	Polley, Henry, assignor to self and Isaac Jessup, San Francisco, Cal. Animal-trap	Dec. 5, 1871
	Pollitt, John H., and William Kenworthy. (See Kenworthy & Pollitt.)	
121,416	Pollock, James B., Port Richmond, N. Y. Apparatus for feeding white-lead, &c., from the mixing-tub to the millstones	Nov. 28, 1871
117,680	Pollock, John W., Bryan, Ohio. Clod crusher and pulverizer	Aug. 1, 1871
116,484	Pollock, Julius F. M., England. Brick-machine	June 27, 1871
	Pollock, Weaver & Co. (See Chapin, Harlow F., assignor.)	
	Pollok, Anthony, administrator. (See Russell, James.)	
111,245	Polsgrove, William, Saint Thomas, Pa. Boot-crimper	Jan. 24, 1871
119,640	Polson, James T., Laclede, Mo. Cutting-apparatus for harvesters	Oct. 3, 1871
118,641	Polson, Thomas J., Kilmichael, Miss. Motive-power	Aug. 29, 1871
119,046	Polyblank, George, and Joseph Parkins, Cleveland, Ohio. Fountain	Sept. 19, 1871
113,560	Pomeroy, David, assignor to Elander Heath, San Francisco, Cal. Dovetailing-machine	April 11, 1871
119,716	Pomeroy, Douglas F., assignor of one-half interest to Findley McGrew, Painesville, Ohio. Machine for bending tires	Oct. 10, 1871
115,098	Pomeroy, William, New York, N. Y. Truss	May 23, 1871
118,483	Same. Hernial pad	Aug. 29, 1871
114,707	Pond, Joseph F., Cleveland, Ohio. Revolving-disk harrow	May 9, 1871
112,073	Pond, Martin W., Elyria, Ohio. Harness-pad	Feb. 21, 1871
114,472	Pond, Orlando M., Independence, Iowa. Combined plow and marker	May 2, 1871
122,192	Pond, Robert J., assignor to Hodenpyl, Tunison & Co., New York, N. Y. Jewelry-fastening	Dec. 26, 1871
	Pond, William A. (See Marks, Myer, assignor.)	
111,676	Pool, John, Elizabeth City, N. C. Gate	Feb. 7, 1871
120,533	Pool, John, assignor to self and Clinton L. Cobb, Elizabeth City, N. C. Door-check	Oct. 31, 1871
116,748	Pool, Josiah, Rio Vista, Cal. Rotary sod-cutter	July 4, 1871
113,793	Poole, Charles A., Sandwich, Ill. Ceiling and wall for buildings	April 18, 1871
116,749	Poole, Ezra, Gouverneur, N. Y. Water-wheel	July 4, 1871
	Poole, John H., <i>et al.</i> (See Wicks, Loren J., assignor.)	
	Poole, Samuel. (See Carpenter, William, assignor.)	
118,268	Poor, Chandler, Dubuque, Iowa. Dental drill	Aug. 22, 1871
	Poor, Josiah B., <i>et al.</i> (See Beatty, James H., assignor.)	
115,099	Poorman, Christian L., Bell Air, Ohio. Clothes-clamp	May 23, 1871
122,056	Pope, Joseph T., Scranton, Pa. Shutter-worker	Dec. 19, 1871
113,341	Pope, Samuel W., Louisville, Ky. Shovel-plow	April 4, 1871
118,050	Same. Clevis	Aug. 15, 1871
	Pope, William P. (See Sanford, Addison V., assignor.)	
	Popham, Richard M., and Daniel P. Dieterich. (See Dieterich & Popham.)	
115,237	Popple, Hiram M., Warren, Pa. Head-block	May 23, 1871
115,100	Porcher, Francis P., Charleston, S. C. Preparation of material for tanning. (Antedated May 17, 1871)	May 23, 1871
	Portable Steam Engine and Manufacturing Company. (See Bradford, Gilbert, assignor.)	
122,132	Porteous, David, Baltimore, Md. Soldering-apparatus	Dec. 26, 1871
115,982	Porteous, John, Cincinnati, Ohio. Combined pressure and vacuum valve	Jan. 13, 1871
116,485	Same. Cylinder-cock	June 27, 1871
116,486	Porter, Ahira S., North Bridgewater, Mass. Shaft-protector	June 27, 1871
115,517	Porter, Albert, Irving, Ill. Car-coupling	May 30, 1871
110,787	Porter, Ansel W., Union City, Ind. Window-shade	Jan. 3, 1871
115,352	Porter, Archibald A., assignor of one-half interest to John E. Moss and John M. Williams, Griffin, Ga. Handle for garden-implements	May 30, 1871
120,455	Porter, Archibald A., Griffin, Ga. Desk and chair combined	Oct. 31, 1871
112,378	Porter, Asahel A., New Haven, Conn. Tack. (Antedated Feb. 25, 1871)	Mar. 7, 1871
120,897	Porter, Benjamin F., assignor to George F. Garrison, Nashua, N. H. Fur-set box	Nov. 14, 1871
113,204	Porter, Edward N., and Israel J. Currier, Wolcott, Vt. Clothes-brier	Mar. 23, 1871
111,149	Porter, Frederick W., Springfield, Vt. Toy-carriage	Jan. 24, 1871
118,150	Porter, Frederick W., Winona, Minn. Slate-washer	Aug. 15, 1871
111,868	Porter, Henry G., Grand Rapids, Mich. Barrel	Feb. 14, 1871
4,272	Same. (Reissue)	Feb. 21, 1871
122,133	Same. (Reissue)	Dec. 26, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,473	Porter, James M., Frostburgh, Md. Lubricator for car-wheels.....	May 2, 1871
	Porter, Olean H., and Michael F. Lowth. (<i>See Lowth & Porter.</i>)	
111,473	Porter, Robert, Ottumwa, Iowa. Trace-carrier.....	Jan. 31, 1871
121,895	Porter, Rufus, assignor to self and G. W. and H. S. Bartholomew, Bristol, Conn. Vise. (<i>Antedated Dec. 2, 1871.</i>).....	Dec. 12, 1871
117,325	Porter, Samuel M., <i>et al.</i> (<i>See Platt & Capewell, assignors.</i>)	
	Porter, Samuel S., Broad Ford, Pa. Fence.....	July 25, 1871
	Porter, Samuel W., <i>et al.</i> (<i>See Martin, Edwin, assignor.</i>)	
	Porter Saw Company. (<i>See Valentine, Samuel W., assignor.</i>)	
117,456	Porter, Thomas G., Louisville, Ky. Dusting-brush.....	July 25, 1871
120,456	Porter, Thomas W., Boston, Mass. Thill-coupling. (<i>Antedated Oct. 11, 1871.</i>)...	Oct. 31, 1871
115,891	Porter, William, jr., New York, N. Y. Lantern.....	June 13, 1871
111,379	Porter, Willis, Orono, Me. Shingle-machine.....	Jan. 31, 1871
111,969	Portillo, Casimiro, New York, N. Y. Miniature war-game.....	Feb. 21, 1871
114,597	Post, Charles C., Hinesburgh, Vt. Smoke-pipe and base-plate for sugar-evaporator.....	May 9, 1871
117,326	Same.....Sap-spout.....	July 25, 1871
117,457	Same.....same.....	July 25, 1871
117,458	Post, Elting, Boston, Mass. Steam-engine.....	July 25, 1871
	Post, Jared W., and Henry F. Herkner. (<i>See Herkner & Post.</i>)	
112,736	Post, John L., Ashley, Pa. Device for preventing back-lash in machinery.....	Mar. 14, 1871
113,342	Postawka, Louis, East Cambridge, Mass. Adjustable-seat.....	April 4, 1871
111,082	Postlethwaite, George R., England. Machine for making bolts and nuts.....	Jan. 17, 1871
	Poston, Elisha W., and Orlando L. Starkey. (<i>See Starkey & Poston.</i>)	
	Poteet, Lorenzo D., <i>et al.</i> (<i>See Perego, Dabney N. M., assignor.</i>)	
111,776	Potter, Charles, jr., Plainfield, N. J. Adjustable attachment of cams for fliers of printing-presses.....	Feb. 14, 1871
120,097	Potter, Henry S., Hawley, Pa. Churn-dasher.....	Oct. 17, 1871
	Potter, James, and Howard Smith. (<i>See Smith & Potter.</i>)	
119,405	Potter, Joseph B., Conneautville, Pa. Automatic governor-valve.....	Sept. 26, 1871
112,179	Potter, Nicholas, East Troy, Pa. Adjustable animal-power.....	Feb. 28, 1871
110,999	Potter, Thomas, Philadelphia, Pa. Oil-paint for coating oil-cloth.....	Jan. 17, 1871
	Same.....(<i>See Washburn, Oliver C., assignor.</i>)	
	Potter, Thomas, Son & Co. (<i>See Paterson, James, assignor.</i>).....(<i>Design.</i>)	
	Same.....(<i>See Kagy, Henry, assignor.</i>).....(<i>Five cases.</i>) (<i>Design.</i>)	
	Same.....(<i>See Webster, John T., assignor.</i>).....(<i>Design.</i>)	
116,093	Potter, Thomas O., and Joseph W. Smith, Boston, Mass. Combined suspender and shoulder-brace.....	June 20, 1871
119,993	Same.....Suspender and shoulder-brace combined.....	Oct. 17, 1871
	Potter, William L., assignor of sectional interest to Plastic Slate-Roofing Joint Stock Company, Newark, N. J. Composition for roofing and other purposes.....(<i>Disclaimer filed.</i>)	May 8, 1871
111,677	Pottle, George F., assignor to self and Reuben K. Huntoon, Boston, Mass. Governor for steam-engines.....	Feb. 7, 1871
114,038	Potts, Albert, Philadelphia, Pa. Wood-pavement.....	April 25, 1871
113,448	Potts, Mary Florence, Ottumwa, Iowa. Sad-iron.....	April 4, 1871
	Poucelet, Matthias, <i>et al.</i> (<i>See Wolff, David Ludwig, assignor.</i>)	
122,057	Powell, Ashley G., Smithfield, N. C. Cotton-chopper.....	Dec. 19, 1871
112,627	Powell, Charles W., Bloomfield, Conn. Wash-boiler.....	Mar. 14, 1871
115,353	Same.....Yalesville, Conn. Wash-boiler.....	May 30, 1871
116,750	Powell, Elcanah, New London, Ind. Boot-crimper.....	July 4, 1871
4,338	Powell, James, Cincinnati, Ohio. Faucet.....(<i>Reissue.</i>)	April 11, 1871
119,641	Same.....Pneumatic pump.....	Oct. 3, 1871
	Powell, James, and Joshua R. Gibson. (<i>See Gibson & Powell.</i>)	
115,518	Powell, James W., New York, N. Y. Electro-magnetic machine.....	May 30, 1871
115,519	Same.....Galvanic battery.....	May 30, 1871
114,598	Powell, John G., Philadelphia, Pa. Button-hole cutter.....	May 9, 1871
	Powell, John S., and Frank S. Judd. (<i>See Judd & Powell.</i>)	
111,869	Powell, Thomas J., Naples, N. Y. Elevator and conveyer.....	Feb. 14, 1871
111,083	Power, Benjamin F., assignor to Hugh M. Cochran and Joseph F. Sonnanstine, McConnellsville, Ohio. Track-clearer for mowing-machines.....	Jan. 17, 1871
121,127	Power, Martin, assignor to self and Henry McLaughlin, Chicago, Ill. Clothes-drier and ironing-board.....	Nov. 21, 1871
	Powers, Deborah, Albert E., and Nathaniel B. (<i>See Meyer, Victor E., assignor.</i>).....(<i>Design.</i>)	
	Powers, D., & Sons. (<i>See Meyer, Jeremiah, assignor.</i>).....(<i>Design.</i>)	
112,628	Powers, Joseph J., Memphis, Tenn. Treating cotton-seed.....	Mar. 14, 1871
114,339	Powers, Phineas F., Genoa, Nev. Hydraulic apparatus.....	May 2, 1871
115,892	Powers, Timothy J., New York, N. Y. Metallic cartridge.....	June 13, 1871
116,094	Same.....same.....	June 20, 1871
117,110	Powers, Titus, New York, N. Y. Sheet-metal key for locks.....	July 18, 1871
	Powers, W. Eugene, and Thomas M. Brintnall. (<i>See Brintnall & Powers.</i>)	
117,567	Powers, William Penn, North La Crosse, Wis. Boring-machine. (<i>Antedated July 27, 1871.</i>).....	Aug. 1, 1871
116,751	Prall, William E., Washington, D. C. Automatic steam-pump.....	July 4, 1871
120,597	Same.....Hydraulic air-compressor.....	Nov. 7, 1871
121,962	Same.....Automatic steam-trap.....	Dec. 19, 1871
116,752	Prall, William E., assignor to self and J. M. Blanchard & Co., Washington, D. C. Device for supplying locomotive tenders with water.....	July 4, 1871
121,469	Prall, William E., and John D. Defrees, Washington, D. C. Propulsion of canal-boats.....	Dec. 5, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,343	Prang, Louis, Boston, Mass. Printing silk and other textile fabrics	April 4, 1871
4,534	Pratt & Whitney Company. (See Parkhurst, Edward G., assignor.)	
	Pratt, Albert W., assignor through mesne assignments to William A. Perkins, Salem, Mass. Machine for buffing, whitening, and polishing leather. (Reissue.)	Aug. 29, 1871
	Pratt, Charles. (See Tait & Avis, assignors)..... (Two cases.) (Reissue.)	
	Same..... (See Kelley & Tait, assignors)..... (Reissue.)	
	Same..... (See Bliss, Eliphalet W., assignor)..... (Reissue.)	
	Pratt, Charles, Manufacturing Company. (See Rogers, Henry H., assignor.) (Two cases.)	
	Same..... (See Rogers & Walter, assignors.)	
	Pratt, Daniel, Prattville, Ala. Cotton-gin	(Extension) June 29, 1871
4,664	Same..... same.....	(Reissue) Dec. 12, 1871
	Pratt, Daniel R., and Joseph M. Rice. (See Fay, Lyman, assignor)..... (Reissue.)	
113,561	Pratt, Elijah, assignor to self and David and Alfred Mundell, New York, N. Y. Paddle-wheel.....	April 11, 1871
	Pratt, E. C., Brother & Co. (See Farmer, George P., assignor.) (Two cases.) (Design.)	
112,379	Pratt, Francis A., assignor to the Pratt & Whitney Company, Hartford, Conn. Machine for shaping and cutting gear-cutters	Mar. 7, 1871
115,893	Pratt, George, West Roxbury, Mass. Raisin-seeder	June 13, 1871
116,216	Pratt, George H., Boston, Mass. Clipping-shears	June 20, 1871
111,678	Pratt, George M., Middletown, Conn. Shuttle for sewing-machines	Feb. 7, 1871
112,074	Pratt, James H., assignor to self and Benjamin F. Larrabee, Lynn, Mass. Clothes-wringing hook	Feb. 21, 1871
4,343	Same..... same.....	(Reissue) April 18, 1871
113,090	Pratt, John J., New York, N. Y. Electro-plating letters and numbers on metallic plates for signs, &c.	Mar. 28, 1871
	Pratt, L. G., & Co. (See Duff, Roberts & Nourse, assignors.)	
	Pratt, Rufus N., and Robert Berryman. (See Berryman & Pratt.)	
119,475	Pratt, Seabird Dodge, Penn Yan, N. Y. Railway-car coupling.....	Oct. 3, 1871
121,296	Pratt, Thomas A., Marysville, Cal. Apparatus for amalgamating gold in tailings. (Antedated Nov. 11, 1871).....	Nov. 28, 1871
114,039	Pratt, T. Willis, Boston, Mass. Truss-bridge.....	April 25, 1871
111,970	Pratt, William, New York, N. Y. Lard and butter box	Feb. 21, 1871
112,075	Same..... Paste-board box.....	Feb. 21, 1871
	Same..... Safety-lamp.....	(Extension) Nov. 15, 1871
110,677	Pratt, William, Providence, R. I., and N. Bangs Williams, assignors to Abby A. Williams, Williams, N. Y. Lubricator	Jan. 3, 1871
117,812	Pratt, William M., Chicago, Ill. Thrashing-machine	Aug. 8, 1871
113,924	Pratt, Zimri I., Chicago, Ill. Sleigh-runner attachment to wheel vehicles.....	April 18, 1871
118,815	Preist, Joram, Detroit, Mich. Wagon-wheel.....	Sept. 12, 1871
115,101	Prentice, John, assignor to Louis Prentice, New York, N. Y. Cigar-mold.....	May 23, 1871
121,659	Prescott, Andrew J., Catawissa, Pa. Safety-valve for steam-boilers	Dec. 5, 1871
119,994	Prescott, Daniel W., Edinburgh, Va. Manufacture of soluble phosphate for fertilizers. (Antedated Oct. 7, 1871).....	Oct. 17, 1871
111,246	Prescott, George Bartlett, New York, N. Y. Connector for telegraph-wires....	Jan. 24, 1871
	Prescott, Gustavus A., and Homer H. Ingalsbe. (See Ingalsbe & Prescott.)	
112,956	Prescott, Samuel A., Sutton, Mass. Gate for turbine water-wheels.....	Mar. 21, 1871
116,217	Prescott, Shubael C., assignor to Howard Smith and Dora E. Brown, Jersey City, N. J. Combined wooden and concrete pavement	June 20, 1871
117,204	Preston, Almon J., East Guilford, N. Y. Combined hay rake and loader	July 18, 1871
114,851	Preston, Jonathan, Boston, Mass. Girder-rest for timbers	May 16, 1871
120,457	Preston, Othniel, South Dansville, N. Y. Lightning-conductor	Oct. 31, 1871
119,176	Prevost, Emile, New York, N. Y. Electro-magnet	Sept. 19, 1871
119,175	Same..... Galvanic battery.....	Sept. 19, 1871
119,177	Prevost, Emile, and Adrian Rablat, New York, N. Y. Magnetic scissors.....	Sept. 19, 1871
115,894	Prevot, Hellwig, New York, N. Y. Sun-stroke protector for head-coverings ...	June 13, 1871
	Price, Astley P., and David Forbes. (See Forbes & Price.)	
	Price, Edward A. (See Saunders, Hiram, assignor.)	
	Price, Henry W. (See Wattles, Hiram J., assignor.)	
	Price, James B. (See Bond, Howard B., assignor.)	
117,327	Price, James M., Nether Providence, Pa. Roof. (Antedated July 13, 1871).....	July 25, 1871
111,870	Price, John A., Scranton, Pa. Cooking-range.....	Feb. 14, 1871
119,787	Same..... Stove-grate.....	Oct. 10, 1871
120,534	Price, John A., Beckleysville, Md. Milk-house.....	Oct. 31, 1871
118,051	Price, Norman L., Lynchburgh, Va. Funnel.....	Aug. 15, 1871
113,925	Price, Rezin M., Leesville, Ohio. Bedstead-fastening.....	April 18, 1871
112,180	Price, Virgil, New York, N. Y. Baldrice.....	Feb. 28, 1871
112,181	Same..... Method of coating and finishing sword-scabbards.....	Feb. 28, 1871
119,642	Same..... Gauntlet-glove.....	Oct. 3, 1871
121,255	Prier, Anton, assignor to Loeffelholz & Prier, Milwaukee, Wis. Arm for railway-car seats	Nov. 28, 1871
	Prier, Anton, and Adam Loeffelholz. (See Loeffelholz & Prier.)	
121,417	Pries, Albert, and Henry Arnd, Saint Louis, Mo. Wood-lathe.....	Nov. 28, 1871
	Priest, J. K., et al. (See Smith, Roswell T., assignor)..... (Reissue.)	
	Priest, Wallace H., and Henry T. Holmes. (See Holmes & Priest.)	
120,827	Priester, Robert L., Souder's Station, Md. Auger for boring boxes. (Antedated Nov. 4, 1871).....	Nov. 14, 1871
	Priestly, J. W., & Co. (See Hudnet & Mathews, assignor.)	
117,813	Primmer, Robert M., Vinton, Iowa. Ditching-plow.....	Aug. 8, 1871
	Prince, George A. (See Bacon, Charles E., assignor)..... (Design.)	
117,328	Prindle, Franklin B., Southington, Conn. Thill-coupling	July 25, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,643	Prindle, Franklin B., assignor of one-half interest to John Deeble, Southington, Conn. Die for manufacturing clip king-bolts	Oct. 3, 1871
114,852	Prindle, L. Corydon, Chicago, Ill. Curtain-fixture	May 16, 1871
119,995	Same.....Card-rack.....	Oct. 17, 1871
	Prindle, R. B., <i>et al.</i> (See Cary, Albert, assignor.)	
116,095	Pringle, Thomas G., New York, N. Y. Propelling boats by oars.....	June 20, 1871
121,545	Prior, Gilbert Stewart, Boston, Mass. Oil-can.....	Dec. 5, 1871
111,247	Pritchard, Jackson P., Conn Valley, Cal. Plow. (Antedated Jan. 14, 1871)	Jan. 24, 1871
122,058	Proctor, David R., Gloucester, Mass. Spark-arrester.....	Dec. 19, 1871
112,488	Proctor, George K., Salem, Mass. Treadle	Mar. 7, 1871
118,971	Same.....same.....	Sept. 12, 1871
120,093	Same.....Caster for sewing-machines	Oct. 17, 1871
114,599	Proctor, George K., and Franklin D. Hamilton, assignors to George K. Proctor, Salem, Mass. Treadle	May 9, 1871
122,279	Proctor, James S., Franklin, Ky. Bee-hive	Dec. 26, 1871
	Prosser, T. & Son. (See King, Robert, assignor).....(Reissue.)	
110,865	Prosser, Treat T., assignor to self and Henry and W. S. Waller, Chicago, Ill. Traction-engine	Jan. 10, 1871
116,218	Prosser, Treat T., assignor to self, Charles E. Ramus, and Henry Waller, Chicago, Ill. Machine for forming spiral grooves on metallic rods	June 20, 1871
116,219	Same.....Machine for making metallic shoe-pegs.....	June 20, 1871
121,256	Prouty, George W., Charlestown, Mass. Printing-press.....	Nov. 28, 1871
	Prouty, Joshua B., administrator. (See Fay, Lucian).....(Extension.)	
	Providence Tool Company. (See Mullen, Robert J., assignor.)	
	Same.....(See Bartlett, Elbridge G. W., assignor.)	
	Provost, Phineas B. (See Brown, William Z., assignor.)	
4,357	Prudden, Condit, Philadelphia, Pa. Machine for bending wood.....(Reissue)	April 25, 1871
112,957	Prud'homme, Pierre Desiré, assignor to Charles de Frondat and Alfred Michant, France. Apparatus for establishing electrical communications in railroad-trains	Mar. 21, 1871
116,350	Prutrock, William, Saint Louis, Mo. Folding-lounge	June 27, 1871
115,520	Pruner, David L., Bellefonte, Pa. Horseshoe-machine.....	May 30, 1871
122,059	Prunty, John E., Baltimore, Md. Automatic double-puppet valve	Dec. 19, 1871
114,340	Prusha, William F., and Elisha L. Wales, assignors to selves and Lewis A. Howe, Marlborough, Mass. Boot and shoe	May 2, 1871
120,598	Prushaw, Thomas Henry, assignor to Taylor, Day & Co., Fredonia, N. Y. Road-wagon	Nov. 7, 1871
113,926	Prybil, Paul, New York, N. Y. Sawing-machine.....	April 18, 1871
116,753	Pryor, William, and Roth Ludwick, Keillogg, Iowa. Farmers' boiler	July 4, 1871
115,983	Pudder, Henry, Dayton, Ky., and Thomas W. Hulbert, Cincinnati, Ohio. Knitting-machine	June 13, 1871
111,568	Puffer, Alvin Davis, Boston, Mass. Wine-sirup, and beverage	Feb. 7, 1871
118,972	Pugh, Edward D., Fort Plain, Iowa. Bee-hive.....	Sept. 12, 1871
119,178	Pugh, William A., and James F. Bigger, Rushville, Ind. Railway cattle-gate.....	Sept. 19, 1871
	Pullen, Gilbert. (See Moores, William C., assignor.)	
118,052	Pullin, Balzar H., McDowell, Va. Medicine or powder for treating cattle and hogs.....	Aug. 15, 1871
111,971	Pulsfort, William, Louisville, Ky. Fire-place grate.....	Feb. 21, 1871
117,111	Pulsifer, Frank H., Auburn, N. Y., and William C. Wheeler, Baltimore, Md. Steam-heater	July 13, 1871
120,772	Pulvermacher, Isaac, London, England. Electro-galvanic chain, band, &c.....	Nov. 7, 1871
116,351	Purcell, William J., New York, N. Y. Copying-apparatus.....	June 27, 1871
	Purdie, H. L. (See Gridley, James H., assignor).....(Two cases.) (Reissue.)	
121,546	Purdie, Hadwen L., deceased, by John Purdie, administrator, Buffalo, N. Y. Nut-locking device.....	Dec. 5, 1871
121,547	Same.....Nut-locking device.....	Dec. 5, 1871
121,548	Same.....same.....	Dec. 5, 1871
121,549	Same.....same.....	Dec. 5, 1871
112,489	Purdy, Victory, Poughkeepsie, N. Y. Lubricating compound	Mar. 7, 1871
119,644	Purnelle, Richard H., Benlah, Miss. Cotton-cultivator. (Antedated Sept. 23, 1871)	Oct. 3, 1871
118,269	Purves, George, New York, N. Y. Cork-cutting machine.....	Aug. 22, 1871
118,484	Purvine, Smiley, and Harrison Smith, Salem, Oreg. Dental plate.....	Aug. 29, 1871
	Pusey, Joshua. (See Thomas, Lancaster, assignor.)	
113,695	Putman, John H., Gloversville, N. Y. Glove	April 11, 1871
111,679	Putnam, Abel, jr., Saratoga Springs, N. Y. Cast-iron barrel	Feb. 7, 1871
111,680	Same.....Water-cooler.....	Feb. 7, 1871
112,490	Putnam, Archibald, assignor to Elizabeth Putnam, Owego, N. Y. Fertilizer and seeding-machine.....	Mar. 7, 1871
112,491	Putnam, George W., South Glen's Falls, N. Y. Rotary pump	Mar. 7, 1871
121,660	Same.....Car-coupling.....	Dec. 5, 1871
116,220	Putnam, Henry M., Fitchburgh, Mass. Bench-hook.....	June 20, 1871
115,102	Putnam, Henry W., Bennington, Vt. Machine for bending wire fastenings for bottle-stoppers	May 23, 1871
115,354	Same.....Machine for forming wire bottle-stopper fastenings	May 30, 1871
115,355	Putnam, Leonard, Worcester, Mass. Washing-machine.....	May 30, 1871
118,642	Putnam, Perley, assignor of one-half interest to James M. Foss, Laconia, N. H. Changeable-gauge car wheel and axle	Sept. 29, 1871
111,248	Putnam, Salmon W., jr., Fitchburgh, Mass. Machine for cutting screw-threads on bolts	Jan. 24, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,737	Putnam, Salmon W., jr., Fitchburg, Mass. Machine for slotting and cutting metal.....	Mar. 14, 1871
111,000	Putnam, Silas, and Thomas Burt, Rockville, Conn. Machine for mixing concrete, &c. (Antedated Jan. 5, 1871).....	Jan. 17, 1871
122,280	Putnam, Zenas B., and Henry H. McDonald, Belfast, Me. Clothes-drier.....	Dec. 26, 1871
118,388	Putt, Joseph A., Marlborough, Ohio. Thill-holder for harness.....	Aug. 22, 1871
5,228	Pye, Henry, assignor to Fleming Brothers, Philadelphia, Pa. Stocking-fabric. (Design).....	Aug. 22, 1871
	Pye, William H. M. (See Johnson, Bradbury M., assignor.)	
113,794	Pyle, Charles W., Wilmington, Del. Counting-register.....	April 18, 1871
114,040	Pyle, Isaac N., Pleasant Mills, Ind. Cultivator.....	April 25, 1871
121,194	Pyott, Louis T., Philadelphia, Pa. Combined wisp and flack.....	Nov. 21, 1871
4,230	Quackenbush, Abram L., and Gilford Hawn, Fort Plain, N. Y. Device for baking bread..... (Reissue).....	Jan. 10, 1871
115,638	Quackenbush, Henry M., Herkimer, N. Y. Toy gun and pistol.....	June 6, 1871
122,193	Same..... Toy-pistol.....	Dec. 26, 1871
120,099	Quaun, William, assignor to self, John W. Thackara, and Edward L. Spain, Philadelphia, Pa. Flux for reducing ore and refining metal.....	Oct. 17, 1871
120,165	Same..... Furnace for roasting and smelting ores.....	Oct. 24, 1871
	Queen, James W., & Co. (See Berguer, Theodore, assignor.)	
115,770	Quick, David R., New York, N. Y. Screw.....	June 6, 1871
115,639	Quick, William B., Belleville, Ill. Gang-plow.....	June 6, 1871
	Quinby, Jesse B., et al. (See Cherry, John Wesley, assignor.)	
112,076	Quinby, Johnson M., Westbrook, Me., and A. S. Dyer, Cape Elizabeth, Me. Door-lock.....	Feb. 21, 1871
113,091	Quinn, Abraham, Brooklyn, N. Y. Shoe-brake for wagons.....	Mar. 28, 1871
116,487	Quinn, Edmund, Brooklyn, N. Y. Crank-motion.....	June 27, 1871
	Quinn, Joseph, and Charles Stevenbanks. (See Stevenbanks & Quinn.)	
4,302	Quinn, Patrick, South New Market, N. H. Steam-boiler..... (Reissue).....	Mar. 14, 1871
118,270	Quint, Herman H., Brookfield, Mo. Hay-elevator.....	Aug. 22, 1871
	Rabbeth, Francis J., et al. (See Wilmarth, Moses P., assignor)..... (Reissue.)	
	Rablat, Adrien, and Emile Prevost. (See Prevost & Rablat.)	
121,418	Race, Washburn, and Sherman D. Hooper, Lockport, N. Y. Gauge for stave-jointers.....	Nov. 28, 1871
116,352	Race, Washburn, assignor to Warren Rowland Ingham, and Nancy M. Race, Lockport, N. Y. Rotary steam-engine.....	June 27, 1871
4,475	Race, Washburn, Lockport, N. Y., and S. R. C. Mathews, assignors to S. R. C. Mathews, Philadelphia, Pa. Hydrant..... (Reissue).....	July 18, 1871
121,001	Racine, Lewin, Hillsdale, Mich. Stove-pipe drum.....	Nov. 14, 1871
112,492	Radcliffe, Robert D., Palmyra, N. Y. Hat-brush.....	Mar. 7, 1871
121,963	Radford, Benjamin F., Hyde Park, Mass. Manufacture of belt-knives.....	Dec. 19, 1871
113,449	Radley, John P., Albany, N. Y. Potato-digger.....	April 4, 1871
120,668	Radston, Jacob, San Francisco, Cal. Stop-cock.....	Nov. 7, 1871
111,001	Raecke, Louis. Filter.....	Jan. 17, 1871
113,927	Raechle, William, assignor to self, George Rex, and Abraham R. Bockins, Philadelphia, Pa. Machine for cutting cloth, &c.....	April 18, 1871
	Raffensperger, Lewis, et al. (See Reiber, George, assignor.)	
114,600	Rafter, James, Winona, Miss. Cotton-seed planter and guano-distributor.....	May 9, 1871
	Rafter, John A., and Pierre E. Jay. (See Jay & Rafter.)	
115,238	Raiford, Philip H., Houston, Tex. Device for attaching napkins to the person.....	May 23, 1871
117,329	Raitz, Chris., San Francisco, Cal. Parlor-skate.....	July 25, 1871
116,991	Rakestraw, Roland, Wyoming, Ill. Rotary harrow.....	July 11, 1871
122,281	Rall, James M., assignor to William W. Thomas, Saint Louis, Mo. Composition for liquid soap.....	Dec. 26, 1871
	Ralston, David, et al. (See Ferguson, Ralston & Hildreth.)	
113,795	Ralya, John Jackson, Cleveland, Ohio. Machine for turning barrel-heads.....	April 18, 1871
	Ramey, Francis A., and Ransler R. Cross, Woodstock, Va. Corn-planter.....	Oct. 17, 1871
112,958	Ramp, Joseph B., Cuyahoga Falls, Ohio. Pipe-coupling.....	Mar. 21, 1871
117,459	Ramsay, Jonathan, jr., Middletown, Conn. Sewing-machine.....	July 25, 1871
116,754	Ramsay, Robert, New Wilmington, Pa. Railway-gate.....	July 4, 1871
	Ramus, Charles E., et al. (See Prosser, Treat T., assignor)..... (Two cases.)	
113,092	Rameevan, John, Carthage, Ohio. Running-gear for carriages.....	Mar. 28, 1871
119,718	Rand, Alonzo C., Chicago, Ill. Heating-stove.....	Oct. 10, 1871
119,719	Same..... same.....	Oct. 10, 1871
119,720	Same..... Burning hydrocarbons on locomotives.....	Oct. 10, 1871
111,871	Rand, Charles R., Dubuque, Iowa. Combined agricultural implement.....	Feb. 14, 1871
112,278	Same..... Locking-device for window-cords.....	Feb. 28, 1871
117,205	Same..... Clamping-device for sash-cords.....	July 18, 1871
115,103	Rand, Jacob, Boston, Mass. Arbor for saws and grooved tools.....	May 23, 1871
120,397	Rand, Jacob B., Concord, N. H. Composition for polishing and scouring.....	Oct. 31, 1871
113,344	Rand, William H., Brooklyn, N. Y. Drill-stock.....	April 4, 1871
113,562	Rand, William J., jr., Brooklyn, E. D., N. Y. Article of food from algæ and sea-mosses.....	April 11, 1871
	Rand, Charles A., and Theodore M. Foote. (See Foote & Randall.) (Three cases.)	
114,853	Randall, Francis W., assignor to George W. White, Burlington, Mich. Device for securing horse-powers.....	May 16, 1871
117,814	Randall, Henry, Quincy, Ill. Hot-air furnace.....	Aug. 8, 1871
110,788	Randall, Jacob R., Camargo, Ill. Corn-planter.....	Jan. 3, 1871
	Randall, John L. (See Whitney, Artemus H., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,738	Randall, John T., Baltimore, Md. Polishing coffee.....	Mar. 14, 1871
111,777	Randall, Reuben W., Biddeford, Me. Clothes and hat hook	Feb. 14, 1871
	Same..... (See Graham, Edmund H., assignor.)	
	Randall, Robert B., and William H. Clague. (See Clague & Randall.)	
	Randall, Robert B., <i>et al.</i> (See Andrews, Randall, & Clague.)	
119,996	Randall, Silas G., assignor to Amelia A. Randall, Providence, R. I. Electro-magnetic water-elevator.....	Oct. 17, 1871
110,866	Randell, Francis M., Greenburgh, N. Y. Apparatus for supplying naphtha to vapor-burning street-lamps.....	Jan. 10, 1871
119,179	Randell, Thomas B., New York, N. Y. Medical compound or liniment	Sept. 19, 1871
	Randlett, James C., and Patrick Kelleher. (See Kelleher & Randlett.)	
114,341	Randolph, Peter F., Jerseyville, Ill. Polishing-machine.....	May 2, 1871
114,474	Same..... Nut-lock. (Antedated April 25, 1871).....	May 2, 1871
	Randolph, William J., <i>et al.</i> (See Wagner, Alfred H., assignor.)	
120,535	Ranger, Bethuel, Brattleborough, Vt. Bracelet-fastening.....	Oct. 31, 1871
111,872	Rank, Amos, Salem, Ohio. Stock-car.....	Feb. 14, 1871
112,629	Same..... Finger-beam for harvesters.....	Mar. 14, 1871
112,630	Same..... Sleigh.....	Mar. 14, 1871
116,866	Same..... Stock-car.....	July 11, 1871
120,669	Same..... Harvester.....	Nov. 7, 1871
111,873	Rank, Amos, Henry King, and Joel Sharp, Salem, Ohio. Railway stock-car	Feb. 14, 1871
4,498	Rank, Amos, Henry King, and Joel Sharp, assignors to the National Cattle-Car Company, Salem, Ohio. Stock-car..... (Reissue).....	Aug. 1, 1871
4,425	Rank, Amos, assignor to the National Cattle-Car Company, Salem, Ohio. Stock-car..... (Reissue).....	June 13, 1871
	Rank, Amos, and Levi Wharton. (See Wharton & Rank.)	
112,182	Rankin, James M., jr., Brooklyn, N. Y. Lamp-chimney. (Antedated Feb. 24, 1871).....	Feb. 28, 1871
121,470	Rankin, James S., Minneapolis, Minn. School desk and seat.....	Dec. 5, 1871
121,471	Same..... Device for supporting and connecting school-desks	Dec. 5, 1871
	Rankin, Samuel M., and William G. Jones. (See Jones & Rankin.)	
112,493	Rankin, Thomas L., assignor to self and D. W. Rockwell, Lyndon, Kans. Refrigerating show-case.....	Mar. 7, 1871
116,630	Ranney, Orrin, Corry, Pa. Setting steam-boilers.....	July 4, 1871
119,539	Ransom, George B., assignor to self and James B. Clark, Chester, Conn. Sash-holder.....	Oct. 3, 1871
114,195	Ransom, Louis, Lansingburgh, N. Y. Trunk-fastening.....	April 25, 1871
114,041	Ransom, Squire, Kingsville, Ohio. Potato-digger.....	April 25, 1871
	Ransome, Robert Charles. (See Tenwick, John, assignor.)	
	Raper, William B. (See Yost, Peter C., assignor.)	
116,755	Rappleye, Joshua W., Farmer Village, N. Y. Constructing wire-fences.....	July 4, 1871
119,645	Rasmussen, Niels, assignor to self and William Hessemer, Chicago, Ill. Animal-trap.....	Oct. 3, 1871
120,536	Rasner, Albert, Dayton, Ohio. Mill-pick.....	Oct. 31, 1871
111,249	Rath, Emil, assignor to Moritz Krickl, New York, N. Y. Stair-rod fastening.....	Jan. 24, 1871
118,271	Same..... Stair-rod.....	Aug. 22, 1871
115,356	Rathbone, Clarence, Albany, N. Y. Telegraph relay-instrument.....	May 30, 1871
	Rathmell, Thomas M., and George G. Wyland. (See Wyland & Rathmell.)	
112,380	Ratzell, Eaneas C., Philadelphia, Pa. Combination camera and developing-box.....	Mar. 7, 1871
120,773	Rau, John Adam, Bethlehem, Pa. Saw-filer.....	Nov. 7, 1871
	Rauch, Jonas E., and Jonathan Garrett. (See Garrett & Rauch.)	
	Raum, John O. (See Gosson, Louis C., assignor.)	
114,042	Ravenel, St. Julien, Charleston, S. C. Apparatus for making sulphuric acid....	April 25, 1871
	Ravold, Michel, and Jean Segondy. (See Segondy & Ravold.)	
118,485	Rawson, Christopher, Philip Ovenden, James Wylde, William McCree, and Henry Hill, England. Deodorizing and purifying sewage, &c.....	Aug. 29, 1871
117,460	Rawson, Solomon and Isaac, Almond, N. Y. Harvester.....	July 25, 1871
	Rawsthorne, Thomas. (See Smith, Joseph, assignor.)	
	Rawzell, Jacob F., and Jacob Lair. (See Lair & Rawzell.)	
120,398	Ray, D. Brainerd, New York, N. Y. Type-setting and distributing machine....	Oct. 31, 1871
	Ray, Francis B. (See Waite, Enoch, assignor.)	
119,406	Ray, Henry H., Arena, Wis. Tempering-apparatus. (Antedated Sept. 23, 1871)...	Sept. 26, 1871
	Ray, Samuel, and Moses R. Shalters. (See Shalters & Ray.)	
115,104	Ray, Thomas, Pelham, Canada. Car-coupler.....	May 23, 1871
119,788	Ray, William F., Fort Wayne, Ind. Wheel for vehicles.....	Oct. 10, 1871
121,002	Rayment, William L., assignor to self and Ralph A. Day, Union City, Mich. Lifting-jack.....	Nov. 14, 1871
	Raymond, Charles, <i>et al.</i> (See Nettleton, Raymond & Hatch).... (Extension.)	
112,959	Raymond, Ennis A., Waterloo, Iowa. Pressed-fruit lifter.....	Mar. 21, 1871
111,778	Raymond, Francois, assignor to the Lalance and Grossjean Manufacturing Company, Woodhaven, N. Y. Coffee-mill.....	Feb. 14, 1871
	Raymond, George N., <i>et al.</i> (See Hopkins, Reid, Raymond & Meeker.)	
114,196	Raymond, Peter V. M., Charles City, Iowa. Railway-switch.....	April 25, 1871
118,151	Raynale, Ebenezer, Birmingham, Mich. Propelling-mechanism for vessels.....	Aug. 15, 1871
118,116	Rayner, William H., Springfield, Mass. Slate-cutting machine.....	Sept. 12, 1871
119,407	Read, Charles A., Bridgeport, Conn. Wheel for boots and shoes.....	Sept. 26, 1871
	Read, Daniel M., and Charles A. (See Webster, John T., assignor).... (Design.)	
113,928	Read, Dwight Ripley, Lawrence, Kans. Bee-hive.....	April 18, 1871
121,728	Read, Elias P., Chicago, Ill. Bed-bottom.....	Dec. 12, 1871
121,729	Same..... same.....	Dec. 12, 1871
121,813	Read, Fredric W., Marquette, Mich. Oil-can. (Antedated Dec. 9, 1871).....	Dec. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,521	Read, Horatio, assignor to self and B. B. Hagerty, Jersey City, N. J. Insulator for telegraph-wires.....	May 30, 1871
4,391	Read, H. F., assignor to National Meter Company, New York, N. Y. Screw-propeller for water-meters..... (Division A, reissue) ..	May 23, 1871
4,392	Same..... Molding propellers for water-meters..... (Division B, reissue) ..	May 23, 1871
111,250	Read, William Benjamin, Gallatin, Tenn. Cultivator.....	Jan. 24, 1871
121,195	Read, William T. B., Chicago, Ill. Harvester..... (Extension) ..	May 22, 1871
	Read, Willis, Patterson, N. Y. Water-wheel.....	Nov. 21, 1871
	Reading, Randolph G., <i>et al.</i> (See Worthman, John E., assignor.)	
120,100	Reading, William, Offutt's Cross-Roads, Md. Cow-milker.....	Oct. 17, 1871
	Ream, Robert L., assignor to the Ream Pavement Company, New York, N. Y. Wooden pavement..... (Disclaimer filed) ..	Mar. 15, 1871
111,084	Reaney, Thomas, Chester, Pa. Table for drilling-machines.....	Jan. 17, 1871
111,085	Same..... Reaming and countersinking tool.....	
	Reaser, Warren T. (See Kromer, Volney, assignor.)	
114,475	Rebstock, Lawrence, Hollidaysburgh, Pa. Life-preserving trunk.....	May 2, 1871
	Reckendorfer, Joseph. (See Wickham, Horace J., assignor.)	
	Same..... same..... (Design.)	
	Same..... (See Muller, Teile H., assignor.)	
	Same..... (See Bartholomew, William N., assignor.)	
4,642	Reckendorfer, Joseph, and Teile H. Muller, assignor to Joseph Reckendorfer, New York, N. Y. Lead-pencil..... (Design) ..	Feb. 7, 1871
	Reddel, Robert. (See Clary, Nathan G., assignor.)	
121,472	Redding, Benjamin, assignor to David M. Dickie, Kentville, Nova Scotia. Water-wheel.....	Dec. 5, 1871
	Redding, Jerome, and Charles Williams, jr. (See Williams & Redding.)	
	Rederer, Adolph, <i>et al.</i> (See Evens, Julius T., assignor.)	
115,357	Redgrave, Montague, Cincinnati, Ohio. Bagatelle.....	May 30, 1871
118,553	Redick, John, Butler, Ohio. Scaffold.....	Aug. 29, 1871
113,093	Reding, Loyal, assignor to N. S. C. Perkins and M. P. Smith, Norwalk, Ohio. Button-hole clamp and guide.....	Mar. 28, 1871
116,992	Redway, Albert J., assignor to Redway & Burton, Cincinnati, Ohio. Cooking-stove.....	July 11, 1871
117,681	Reece, Nehemiah, Hemlock Township, Pa. Machine for cleaning grain.....	Aug. 1, 1871
110,935	Reece, William R., assignor to self and the Iron Manufacturing and Coal Company, Tremont, Pa. Valve-gear.....	Jan. 10, 1871
	Reed & Barton. (See Parkin, William, assignor)..... (Four cases.) (Design.)	
	Same..... (See Gill, George, assignor)..... (Four cases.) (Design.)	
112,279	Reed, David, and Thomas E. Pierce, Sullivan, Ind. Spoke and felloe machine.....	Feb. 28, 1871
113,563	Reed, David, and Amos Shaeffer, Medway, Ohio. Clothes-line conductor.....	April 11, 1871
119,180	Reed, Edward F., and John C. Grundy, Chelsea, Mass. Shutter-fastener.....	Sept. 19, 1871
	Reed, Henry G. (See Reilly, James H., assignor.)	
112,077	Reed, Henry G., assignor to Reed & Barton, Taunton, Mass. Mode of manufacturing gold, silver, or plated ware.....	Feb. 21, 1871
118,486	Reed, James C., Boston, Mass. Bouquet-holder.....	Aug. 29, 1871
120,324	Same..... Attachment for protecting sleeves and cuffs of garments.....	Oct. 24, 1871
115,771	Reed, J. Eugene, Mineville, N. Y. Cultivator.....	June 6, 1871
110,678	Reed, James H., La Fayette, Ind. Churn.....	Jan. 3, 1871
119,408	Reed, James L., Hastings, Mich. Shifting-rail for wagon-seats.....	Sept. 26, 1871
118,272	Reed, James W., and Hugh A. Jones, Pittsburgh, Pa. Clothes-drier. (Antedated Aug. 10, 1871) ..	Aug. 22, 1871
111,972	Reed, Samuel H. and George A., Fredericktown, Ohio. Car-coupling.....	Feb. 21, 1871
118,643	Reed, Thomas, Plainwell, Mich. Ironing-table.....	Aug. 29, 1871
120,101	Same..... same.....	Oct. 17, 1871
116,867	Reed, Timothy K., assignor to Arza B. Keith, East Bridgewater, Mass. Boot and shoe heel trimming and burnishing machine.....	July 11, 1871
118,273	Reed, William, Allentown, Pa. Treadle-power.....	Aug. 22, 1871
118,274	Same..... Saw-gummer.....	Aug. 22, 1871
118,389	Reed, William A., Deep River, Conn. Piano-key.....	Aug. 22, 1871
4,273	Reedy, Henry J., Cincinnati, Ohio. Hoisting-machine..... (Reissue) ..	Feb. 21, 1871
116,096	Same..... same.....	June 20, 1871
121,064	Rees, Edward H., Mansfield, Ohio. Steam-engine.....	Nov. 21, 1871
114,601	Rees, James, Pittsburgh, Pa. Adjustable cut-off for steam-engines.....	May 19, 1871
116,353	Same..... Steam-engine piston-head.....	June 27, 1871
114,854	Reese, Abram, Pittsburgh, Pa. "Fix" for puddling and other purposes.....	May 16, 1871
115,358	Reese, Abram, assignor to self, Robert W. Lyon, and George H. McNary, Pittsburgh, Pa. Pinch-bar.....	May 30, 1871
115,895	Reese, Adam R., Phillipsburgh, N. J. Hose-pipe.....	June 13, 1871
118,053	Reese, Edwin, assignor to C. M. Reese, Entaw, Ala. Cultivator.....	Aug. 15, 1871
112,280	Reese, Henry, Baltimore, Md. Nail-machine.....	Feb. 28, 1871
118,744	Same..... same.....	Sept. 5, 1871
117,815	Reeve, Oliver P., and Christopher C. Parker, Central City, Mo. Bee-hive. (Antedated Aug. 3, 1871) ..	Aug. 8, 1871
	Reeve, Richard H. and Benjamin C. (See Paterson, James, assignor) .. (Design.)	
113,796	Reeves, Alfred B., Knightstown, Ind. Cant-hook.....	April 18, 1871
113,094	Reeves, Benjamin M., Franklin, Pa. Machine for pulling flax. (Antedated March 16, 1871) ..	Mar. 28, 1871
117,926	Same..... Flax-puller.....	Aug. 8, 1871
120,774	Reeves, Henry T., Beaver Falls, Pa. Cutlery. (Antedated Nov. 1, 1871) ..	Nov. 7, 1871
112,847	Reeves, Tapping, Little River, Cal. Lubricator.....	Mar. 21, 1871
119,951	Regan, John F., Chicago, Ill. Shifting-rail for buggy-top.....	Oct. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,631	Regester, Joshua, Baltimore, Md. Bell	Mar. 14, 1871
117,112	Same.....Cock.	July 18, 1871
114,197	Rehbein, William G., and Christian L. Schurr. (<i>See</i> Schurr & Rehbein.)	
	Rehfuss, George, assignor to American Button-Hole Overseaming and Sewing-Machine Company, Philadelphia, Pa. Sewing-machine.....	April 25, 1871
121,896	Same.....same.....	Dec. 12, 1871
114,968	Rehn, Isaac, assignor to self and Norris Peters, Washington, D. C. Copying colored and defective drawings, &c.....	May 16, 1871
121,128	Rehn, Isaac, Washington, D. C. Mode of producing designs for knit and woven fabrics.....	Nov. 21, 1871
118,390	Reiber, George, assignor to self, Lewis Raffensperger, and Samuel Reiber, Dover, Pa. Hay-knife.....	Aug. 22, 1871
116,097	Reichard, Henry C., assignor to Sol Foster, jr., Pottsville, Pa. Police-baton.....	June 20, 1871
	Reichelderfer, John, administrator. (<i>See</i> Kuntz, Philip.)	
116,756	Reichert, Adam, West Lodi, Ohio. Spring vehicle.....	July 4, 1871
	Reichert, Louis P., and Andrew Fuller. (<i>See</i> Fuller & Reichert).....(Reissue.)	
5,132	Reid, Adam, Buffalo, N. Y. Cake-pan.....(Design.)	July 18, 1871
	Reid, Charles H., <i>et al.</i> (<i>See</i> Hopkins, Reid, Raymond & Meeker.)	
112,960	Reid, Charles L., Louisville, Ky. Broom.....	Mar. 21, 1871
	Reid, Charles L., and Ambrose E. Camp. (<i>See</i> Camp & Reid.)	
	Reid, Peter B. (<i>See</i> Clark, George Homer, assignor.)	
114,708	Reid, Robert, assignor to Henry Disston & Son, Philadelphia, Pa. Handle for cross-cut saws.....	May 9, 1871
	Reid, William I., and Myron H. Strong. (<i>See</i> Strong & Reid.)	
111,380	Reid, William O., Vienna, N. C. Invalid-bedstead.....	Jan. 31, 1871
114,198	Reiff, William H., Philadelphia, Pa. Advertising device.....	April 25, 1871
121,196	Same.....Advertising show-case.....	Nov. 21, 1871
	Reifsnieder, John P. (<i>See</i> Hartzell, George, assignor).....(Design.)	
	Reifsnieder, John P., and George Hartzell. (<i>See</i> Hartzell & Reifsnieder.)	
	Reiley, William P., <i>et al.</i> (<i>See</i> Bennett & Barsch, assignors.)	
111,086	Reilly, James H., assignor to Henry G. Reed, Brooklyn, N. Y. Matting-apparatus.	Jan. 17, 1871
117,330	Reimers, Frederick P. L., and Hans Asbahr, Davenport, Iowa. Sulky-harrow.....	July 25, 1871
118,054	Rein, Bernard, Marietta, Ohio. Rain-water cut-off.....	Aug. 15, 1871
113,929	Reinhard, Philip H., and Ernest F. M. Fachtz, Washington, D. C. Wood-pavement.....	April 18, 1871
	Reinshagen, Peter W. (<i>See</i> Buckman, John H., assignor).....(Reissue.)	
113,930	Reisinger, George W., Harrisburgh, Pa. Sash-holder.....	April 18, 1871
118,275	Rembert, Samuel S., Memphis, Tenn. Cotton-press.....	Aug. 22, 1871
118,554	Same.....Apparatus for transmitting motion.....	Aug. 29, 1871
111,569	Remer, John A., assignor to self and Henry Assenheimer, New York, N. Y. Kiln for drying malt.....	Feb. 7, 1871
115,105	Remington, Chauncey P., Smith's Mills, N. Y. Washing-machine.....	May 23, 1871
	Remington, E., & Sons. (<i>See</i> Smoot, William S., assignor).....(Two cases.)	
111,002	Remington, Horatio A., Anthony, R. L. Let-off mechanism for looms.....	Jan. 17, 1871
119,721	Remington, Martin C., Weedsport, N. Y. Horse hay-rake.....	Oct. 10, 1871
	Remington, Philo. (<i>See</i> Lee, James, assignor).....(Two cases)	
	Same.....(<i>See</i> Gibbs, Lucius H., assignor.)	
	Remsen, Henry R., Albany, N. Y. Mill for cleaning castings.....(Extension).....	April 4, 1871
115,359	Same.....Newtonville, N. Y. Base-burning stove.....	May 30, 1871
113,205	Remy, Benjamin W. and Noah T., Brookville, Ind. Corn-drill.....	Mar. 28, 1871
113,206	Same.....Corn-plow.....	Mar. 28, 1871
111,874	Rennyson, William, Norristown, Pa. Chimney for lime-kilns.....	Feb. 14, 1871
118,973	Same.....Harrow.....	Sept. 12, 1871
121,003	Same.....same.....	Nov. 14, 1871
113,564	Rentchler, Daniel, Belleville, Ill. Grain-drill.....	April 11, 1871
	Renwick, Edward Sabine, trustee. (<i>See</i> Paraf, Alfred, assignor).....(Five cases.)	
	Same.....same.....(Reissue.)	
119,646	Renwick, Thomas R., assignor through mesne assignments to self, Josiah A. Osgood, and Charles M. Weiss, Grand Rapids, Mich. Stove-pipe drum.....	Oct. 3, 1871
116,868	Reuz, Robert and Andrew, Naugatuck, Conn. Manufacture of shears and scissors.....	July 11, 1871
111,681	Repetti, Joseph, Philadelphia, Pa. Propelling-apparatus for boats. (Antedated Feb. 4, 1871).....	Feb. 7, 1871
118,817	Rerdell, Mont C., Clinton, Ark. Steam-valve.....	Sept. 12, 1871
	Reuschel, William, and William Sooy Smith. (<i>See</i> Smith & Reuschel.)	
	Reversible Boot-Heel Company. (<i>See</i> Richardson & Hacker, assignors.) (Two cases.)	
113,565	Rewrick, Assaria, San Francisco, Cal. Machine for sawing staves.....	April 11, 1871
114,709	Rex, George, Philadelphia, Pa. Apparatus for carbureting air.....	May 9, 1871
112,632	Reybert, Sarah A., Plainfield, N. J. Hair-tonic.....	Mar. 14, 1871
	Reybold, Anthony. (<i>See</i> Doyle, John assignor.)	
	Same.....same.....(Two cases.) (Reissue.)	
111,381	Reyman, Jacob B., assignor of one-half interest to Donald W. Campbell, Springfield, Mo. Water-wheel.....	Jan. 31, 1871
	Reymert, James D. (<i>See</i> Lee, Sverre, assignor.)	
117,206	Reynolds, Baker W., Evansville, Ind. Blower-tube for furnaces.....	July 18, 1871
111,570	Reynolds, Daniel M., Chicago, Ill. Portable swing.....	Feb. 7, 1871
121,419	Reynolds, Ezekiel F., Saint Joseph, Mich. Switch-stand.....	Nov. 28, 1871
112,183	Reynolds, George H., assignor to self, Cornelius H. Delamater, and Alexander K. Rider, New York, N. Y. Valve for condensers.....	Feb. 28, 1871
114,969	Same.....Piston and piston-packing.....	May 16, 1871
116,098	Same.....Tube-fastening of condensers.....	June 20, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,566	Reynolds, G. H., <i>et al.</i> (See Rider, Alexander K., assignor.).....(Four cases.)	April 11, 1871
116,757	Reynolds, George S., Lebanon, N. H. Friction-clutch	July 4, 1871
112,961	Reynolds, Ira, assignor to Reynolds & Reynolds, Dayton, Ohio. Book-binding apparatus	Mar. 21, 1871
120,166	Reynolds, Jesse, Philadelphia, Pa. Portable furnace	Oct. 24, 1871
113,567	Same.....(See Steffe, William, assignor).....(Reissue.)	April 11, 1871
116,993	Reynolds, John C. Soldering-iron	Mar. 8, 1871
121,129	Reynolds, Martin M. (See Groom, George, assignor.)	July 11, 1871
113,693	Reynolds, Orlando McKnight, and David T. Kitchell, Oil City, Pa. Gas-heater	Nov. 21, 1871
114,855	Reynolds, Samuel, Ellisburgh, N. Y. Water-wheel.....(Extension)	April 11, 1871
111,003	Reynolds, Samuel, Pittsburgh, Pa. Back-band hook for harness	Mar. 16, 1871
113,207	Reynolds, Samuel D., Rochelle, N. Y. Road-dresser	Jan. 17, 1871
116,869	Reynolds, Samuel L. and John W., Pittsburgh, Pa. Whiffletree	Mar. 28, 1871
121,420	Reynolds, Thomas H., Rome, Ga. Plow	July 11, 1871
117,235	Reynolds, William, Manchester, N. H. Burglar-alarm	Nov. 28, 1871
112,494	Reynolds, William, and Joseph V. Brooks, Lexington, Ill. Bee-hive	July 18, 1871
119,047	Reynolds, William H., New Orleans, La. Press for hay, &c	Mar. 7, 1871
112,381	Reynolds, William W., Brandon, Vt. Machine for graduating scale-beams	Sept. 19, 1871
119,647	Rhett, Benjamin, Abbeville, S. C. Ditching-machine	Mar. 7, 1871
115,640	Rhoads, Philip, Carlisle, Pa. Device for starting and stopping cars	Oct. 3, 1871
113,797	Rhodes, David, Fredericktown, Mo. Fence	June 6, 1871
119,722	Rhodes, John, <i>et al.</i> (See Young & Doll, assignors.)	April 18, 1871
114,476	Rhodes, John C., South Abington, Mass. Punching-machine	Oct. 10, 1871
	Same.....Machine for making eyelets	May 2, 1871
	Rhodes, Joseph, Dunkirk, N. Y. Coal-chute	
	Rhodes, Leonidas M., Warrenton, Ga. Guano and seed drill	
	Rhodes, Washington H., Lancaster, Pa. Frame for the glasses of carriage-curtains	
	Riblet, George J., Botheville, W. Va. Tire-bending machine	
	Rice, Barton & Fales Machine and Iron Company. (See Barton, George S., assignor.)	
	Rice, Benjamin F., deceased, by Roxanna Rice, executrix, South Lancaster, Mass. Machine for making paper-bags.....(Extension)	
	Rice, Charles E., Jersey City, N. J. Main-spring attachment for watches	
	Rice, Chauncy. (See Gridley, John B., assignor.)	
	Rice, Eli B., assignor of one-third interest to John H. Garnhart, Madison, Wis. Harvester	
	Rice, George S., and James M. Crossman. (See Crossman & Rice.)	
	Rice, Henry J., assignor to self, John K. Love, James S. Smith, and William B. Smith, Cincinnati, Ohio. Gas hand-lamp	
	Rice, Israel L. G., Cambridge, Mass. Machine for bronzing	
	Rice, Joseph M., and Daniel R. Pratt. (See Fay, Lyman, assignor).....(Reissue.)	
	Rice, Matthias Joslyn, Boston, Mass. Photographic card-frame.....(Design)	
	Rice, Nathaniel B., East Saginaw, Mich. Manufacture of acid phosphates for use in baking-powder	
	Same.....Obtaining gelatine from bones, horn, pith, &c	
	Rice, Thomas C., Worcester, Mass. Fire-escape	
	Rich, Charles, Poughkeepsie, N. Y. Spring bed-bottom, seat, &c	
	Rich, Charles, assignor to the Metallic Union Spring Company, Poughkeepsie, N. Y. Spring for beds, &c.....(Reissue)	
	Same.....Spring bed-bottom, sofa, and chair-seat	
	Rich, Charles, Henry Crow, and Marcus Rich, New York, N. Y. Hood. (Design)	
	Rich, John, Painesville, Ohio. Chuck for lathes. (Antedated March 27, 1871)	
	Rich, Thomas, South Seekonk, Mass. Suspender	
	Richard, Albert C., assignor through mense assignments to Anry G. Coes, Worcester, Mass. Wrench.....(Reissue)	
	Richard, Jean Elie, Columbia, S. C. Water-gauge	
	Richards, Albert D., assignor to Tufts, Grosvenor & Co. Medicated plaster	
	Richards, Allen C. (See Hall, John C., assignor.)	
	Richards, Celius E., assignor to self, William H., and Daniel H. Robinson, North Attleborough, Mass. Swivel-hook	
	Richards, Charles B., Hartford, Conn. Bearing for machinery	
	Richards, Charles B., assignor to the Colt's Patent Fire-Arms Manufacturing Company, Hartford, Conn. Revolving fire-arm	
	Same.....same	
	Richards, Hezekiah H., Fond du Lac, Wis. Thimble-skein for wagons	
	Richards, Ira A., Middletown, Conn. Boat-detaching apparatus	
	Richards, Isaac P., Whitinsville, Mass. Punch.....(Reissue)	
	Richards, John, Philadelphia, Pa. Saw-mill	
	Same.....Band-sawing machine	
	Richards, Joseph W. (See Millochau, Adolph, assignor.)	
	Richards, Phillip W., Boston Highlands, Mass. Stuffing-box	
	Same.....Stuffing-box and stuffing-box packing	
	Same.....Stuffing-box	
	Richards, Samuel, and Josiah Peiffer. (See Peiffer & Richards.)	
	Richards, Thomas C., New York, N. Y. Picture-nail	
	Same.....same. (Antedated Sept. 30, 1871)	
	Richards, William, England. Chimney-top	
	Richardson, Abijah. (See Stevens, Chase A., assignor.).....(Four cases.)	
	Same.....(See Stevens & Lindsley, assignors.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
122,060	Richardson, Andrew, New Brunswick, N. J. Vault-cover lock	Dec. 19, 1871
121,197	Richardson, Charles, Philadelphia, Pa. Flour-sifter	Nov. 21, 1871
117,207	Richardson, Edward P., and John C. Hancock. (See Hancock & Richardson.)	
114,199	Richardson, Everett P., assignor through mesne assignments to McKay Sewing-Machine Association, Lawrence, Mass. Sewing-machine for boots and shoes.	July 18, 1871
112,962	Richardson, Frederic W., assignor to Christian A. Walcheid, New York, N. Y. Folding-chair	April 25, 1871
116,758	Richardson, Frederick, and Francis Hacker, assignors to Reversible Boot-Heel Company, Providence, R. I. Reversible boot-heel	Mar. 21, 1871
114,477	Same..... same	July 4, 1871
112,495	Richardson, Frederick C., assignor to self and William Hellins, New York, N. Y. Hair-clipping device. (Antedated April 27, 1871)	May 2, 1871
118,644	Richardson, George, Milwaukee, Wis. Pipe-molding machine	Mar. 7, 1871
118,745	Same..... Woven-wire bed-bottom	Aug. 29, 1871
118,880	Same..... Bed-bottom. (Antedated Aug. 18, 1871)	Sept. 5, 1871
111,382	Same..... Drain-pipe machine	Sept. 12, 1871
116,488	Richardson, George W., Troy, N. Y. Balance-slide valve for steam-engines.	Jan. 31, 1871
114,343	Richardson, H. A., et al. (See Lewis, Albert C., assignor.)	
118,645	Richardson, Horace L., Lyndon, Ill. Washing-machine	June 27, 1871
117,208	Richardson, J. Hubert. (See Seimel, Conrad, assignor.)	
114,343	Richardson, James H., Westport, Me. Animal and game trap	May 2, 1871
118,645	Richardson, Jeannie V., Milwaukee, Wis. Abdominal supporter	Aug. 29, 1871
117,208	Richardson, John Thomas Haden, England. Apparatus for cutting glass-globes	July 18, 1871
114,970	Richardson, Josiah C. and Edward P., et al. (See Hancock & Richardson.)	
117,929	Richardson, Milo A., Sherman, N. Y. Boot-jack	May 16, 1871
119,049	Richardson, Nathan, Gloucester, Mass. Steering-apparatus	Aug. 8, 1871
4,630	Richardson, Solon, jr., et al. (See Dinsmore, Alfred S., assignor.)	
111,004	Richardson, Thomas and John W., and Adam Spencer, England. Construction of piles for railway-rails	Sept. 19, 1871
110,631	Richardson, Thomas, John J. Lundy, and Robert Irvine, assignors to John H. Wingfield, England. Extraction and manufacture of oils from vegetable and mineral substances	Nov. 7, 1871
111,004	Richardson, William, England. Machine for burring wool, &c. (Reissue)	Jan. 17, 1871
110,631	Richey, George W., and Horace E. Bixby, Saint Louis, Mo. Binnacle for mariners' compasses	July 4, 1871
5,141	Richmond, Apollos, Brooklyn, N. Y., and Sampson G., Norwich, Conn. Cooking range or stove	July 25, 1871
114,200	Richmond, Archibald M., New York, N. Y. Button-fastener	April 25, 1871
111,383	Richmond, George G., Peekskill, N. Y. Mica frame for stoves	Jan. 31, 1871
114,856	Richmond, Henry B. (See Berrey, William, assignor)	(Reissue.)
111,251	Richmond, Henry P., and Thomas E. Carpenter, Providence, R. I. Finger-ring	May 16, 1871
116,221	Richmond, James, Lockport, N. Y. Machine for transmitting and distributing motive-power	Jan. 24, 1871
117,930	Same..... Means for transmitting motive-power	June 20, 1871
112,963	Richmond, John D., jr., New Liberty, Ky. Medical compound for coughs, colds, &c.	Aug. 8, 1871
116,489	Richmond, Seelye, assignor of one-half interest to Joseph E. Dickson, Annapolis, Md. Fruit-drier and food-warmer	Mar. 21, 1871
110,868	Richmond, Seelye, and Joseph E. Dickson. (See Dickson & Richmond.)	
111,975	Richter, Ernst H., Taunton, Mass. Composition-fuel	June 27, 1871
117,462	Richter, Joseph, Cincinnati, Ohio. Lubricator	Jan. 10, 1871
115,522	Rickard, Alexander, Schoharie, N. Y. Plow	Feb. 21, 1871
119,050	Rickard, William T., New Monitor, Cal. Compound for preventing incrustation in steam-boilers	July 25, 1871
112,382	Rickards, William, jr., Franklin, Pa. Car-coupling. (Antedated May 25, 1871)	May 30, 1871
118,487	Rickel, James F., Byron, Ill. Sash-holder	Sept. 19, 1871
119,094	Ricker, John W., Chelsea, Mass. Washing-machine	Mar. 7, 1871
117,683	Same..... same	Aug. 29, 1871
111,252	Ricketts, Thomas H. (See Diehl, George H., assignor.)	
111,088	Rickey, Daniel B., San Francisco, Cal. Bung and bung-inserter	Sept. 19, 1871
114,344	Riddell, William, England. Disintegrating vegetable fiber for paper-pulp, &c. ..	Aug. 1, 1871
116,099	Rideout, John P., Bowdoinham, Me. Hay-loader	Jan. 24, 1871
118,392	Rider, Alexander K., assignor to self, Cornelius H. Delamater, and George H. Reynolds, New York, N. Y. Hot-air engine	Jan. 17, 1871
120,325	Same..... same	Jan. 17, 1871
113,798	Same..... Slide-valve	May 2, 1871
118,152	Same..... same	June 20, 1871
114,044	Rider, Alexander K., assignor to self and Cornelius H. Delamater, New York, N. Y. Piston-valve for fluid meters and motors	Aug. 22, 1871
121,814	Same..... Air-engine	Oct. 24, 1871
118,276	Rider, Alexander K., et al. (See Reynolds, George H., assignor) .. (Three cases.)	
117,113	Rider, John F. C., and Emerson P. Brownell, South New Market, N. H. Lathe. (Antedated April 10, 1871)	April 18, 1871
118,152	Rider, Joseph, Newark, Ohio. Magazine fire-arm	Aug. 15, 1871
114,044	Rider, Leman P., assignor to self and James Marshall, Pittsburgh, Pa. Plow mold-board. (Antedated April 12, 1871)	April 25, 1871
121,814	Rider, Oliver J., and John C. Bryant, Wellington, Mo. Washing-machine. (Antedated Nov. 25, 1871)	Dec. 12, 1871
118,276	Rider, William, Almont, Mich. Oil-cup	Aug. 22, 1871
117,113	Rider, Zerah, Painesville, Ohio. Steam-plowing machine	July 18, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,646	Ridgway, Charles L., Boston, Mass. Beer-cooler.....	Aug. 29, 1871
117,684	Ridley, James Cartmell, England. Manufacture of malleable iron and steel....	Aug. 1, 1871
121,815	Ridley, Henry A., Jacksonport, Ark. Cotton-planter.....	Dec. 12, 1871
114,857	Ridley, William H., Pittsburgh, Pa. Toggle-pin for nail-machines.....	May 16, 1871
120,828	Ridout, Moses T., assignor to self and Joseph H. Mann, Sun Prairie, Wis. Grain-binder.....	Nov. 14, 1871
111,976	Riedel, Frank, San Francisco, Cal. Privy.....	Feb. 21, 1871
115,239	Same.....same.....	May 23, 1871
121,421	Rieger, Henry, Beaufort, S. C. Fire-shield.....	Nov. 28, 1871
113,345	Rieke, George, Cairo Township, Minn. Field thrashing-machine.....	April 4, 1871
120,167	Ries, Henry, Norwalk, Ohio. Combined thrashing and hulling machine. (Ante-dated Oct. 14, 1871).....	Oct. 24, 1871
114,858	Rigby, John, assignor through mesne assignments to self, Joseph Davis, and A. Filson Dalzell, Pittsburgh, Pa. Housing for rolls.....	May 16, 1871
119,789	Rigby, John, and Joseph Holt, Marquette, Mich. Balanced slide-valve.....	Oct. 10, 1871
	Rigby, John, <i>et al.</i> (See Davis, Joseph, assignor.)	
	Riggs, John F., and David A. Constable. (See Constable & Riggs.)	
4,589	Riggs, John W., assignor of one-half interest to John J. Diefendorf, Brooklyn, N. Y. Truss-spring.....(Reissue).....	Oct. 10, 1871
113,568	Riggs, Joseph H., Chelsea, Mass. Whiffletree.....	May 11, 1871
	Riggs, J. W., Brooklyn, N. Y. Truss.....(Extension).....	Nov. 18, 1871
121,662	Righter, Lewis, Salem, Ohio. Spring for vehicles.....	Dec. 5, 1871
121,663	Same.....Tire for wheels of vehicles. (Antedated Nov. 28, 1871).....	Dec. 5, 1871
119,998	Riker, De Witt, assignor to self and Frederick W. Runge, San Francisco, Cal. Saw. (Antedated Sept. 30, 1871).....	Oct. 17, 1871
111,253	Riker, William, Newark, N. J. Setting stones, &c.....	Jan. 24, 1871
5,086	Same.....Banner-pin.....(Design).....	July 4, 1871
115,896	Rile, John L., New York, N. Y. Book-binding.....	June 13, 1871
4,577	Same.....Binding invoice-books.....(Reissue).....	Oct. 3, 1871
121,964	Riley, Edward, Cleveland, Ohio. Manufacture of cutters for barbed nails.....	Dec. 19, 1871
111,474	Riley, James and Patrick, New York, N. Y. Machine for drilling and tapping water and gas mains.....	Jan. 31, 1871
114,711	Riley, John, assignor to the United States and Foreign Salamander Felting Company, Troy, N. Y. Composition for covering steam-boilers, &c.....	May 9, 1871
	Riley, O. Matthew. (See Batchelder, William W., assignor.)	
	Riley, Solomon H., and Milton W. Kirkwood. (See Kirkwood & Riley.)	
116,632	Riley, Thomas, Williamsburgh, N. Y. Clothes-line supporter. (Antedated June 28, 1871).....	July 4, 1871
114,201	Riley, William G., Sullivan, Ind. Trace-buckle.....	April 25, 1871
	Ring, Aaron, Wiscasset, Me. Seeding-machine.....(Disclaimer filed).....	Aug. 21, 1871
114,971	Ring, John, Saint Louis, Mo. Lard-package.....	May 16, 1871
	Ringwalt, Samuel. (See Clayton, Gregg, assignor.)	
113,208	Riotte, Eugene N., assignor of five-sevenths interest to Charles A. Stetefeldt and John H. Boalt, San Francisco, Cal. Chloridizing silver ores.....	Mar. 28, 1871
117,114	Rionff, Henry L., assignor to self and Stephen W. Moody, Pleasant Ridge, Ohio. Carriage.....	July 18, 1871
	Ripley, Daniel C., <i>et al.</i> (See Smith, Kwozcalla & Ripley).....(Design).....	
114,345	Ripley, William J., Cincinnati, Ohio. Clothes-line protector and stretcher.....	May 2, 1871
110,869	Rishel, Elias C., White Haven, Pa. Dental lathe. (Antedated Dec. 31, 1870).....	Jan. 10, 1871
116,222	Risley, Martin, assignor to Samuel D. Burbank, Springfield, Mass. Spectacle-frame.....	June 20, 1871
	Ritchel, Charles F., and Frank S. Allen. (See Allen & Ritchel)....(Two cases.)	
114,859	Ritchey, John B., Pomeroy, Ohio. Dovetailing-machine.....	May 16, 1871
117,332	Same.....same.....	July 25, 1871
111,254	Ritchie, Edward S., Brookline, Mass. Card for mariners' liquid-compasses.....	Jan. 24, 1871
	Ritchie, Francis, and Nicholas S. Vedder. (See Vedder & Ritchie.) (Four cases.) (Design).....	
118,818	Ritchie, James, assignor to self and William J. Walsh, Detroit, Mich. Tool for plugging leaky boiler-tubes.....	Sept. 12, 1871
115,523	Riter, John L., Brownsville, Ind. Grain-drill.....	May 30, 1871
119,882	Same.....Frame for school desks and seats.....	Oct. 10, 1871
114,346	Rittenhouse, Aaron, Smithville, Ohio. Saw-guide. (Antedated April 28, 1871).....	May 2, 1871
113,096	Ritter, Henry M., Cincinnati, Ohio. Reversible knob-latch.....	Mar. 28, 1871
113,097	Same.....same.....	Mar. 28, 1871
120,326	Ritter, Isaac R., assignor to self and Jacob R. Ritter, Reading, Pa. Scroll-saw.....	Oct. 24, 1871
120,537	Ritter, Samuel S., Philadelphia, Pa. Truss.....	Oct. 31, 1871
4,933	Rivers, Thomas L., Newark, N. J. Cap for trunk-handles.....(Design).....	May 23, 1871
120,670	Same.....Caster for trunks.....	Nov. 7, 1871
114,347	Robb, Alexander R., Brooklyn, N. Y. Plumbers' water-boiler.....	May 2, 1871
119,281	Robbins, Benjamin F., Harwich, Mass. Axle-shield for carriages.....	Sept. 26, 1871
112,964	Robbins, Edward Y., Cincinnati, Ohio. Tile-stove. (Antedated March 13, 1871).....	Mar. 21, 1871
114,348	Robbins, Eugene H., Pittsfield, Mass. Pipe-wrench.....	May 2, 1871
114,712	Robbins, George W., Dubuque, Iowa. Spring bed-bottom.....	May 9, 1871
112,739	Robbins, Henry R., Baltimore, Md. Wash-boiler.....	Mar. 14, 1871
114,349	Same.....Railroad-car heater.....	May 2, 1871
119,409	Same.....Car-coupling.....	Sept. 26, 1871
119,649	Same.....Trap for wash-boilers.....	Oct. 3, 1871
114,860	Robbins, Horace T., Hyde Park, Mass. Kettle-handle.....	May 16, 1871
115,524	Same.....Lamp-wick.....	May 30, 1871
	Robbins, H. W., <i>et al.</i> (See Hawkes, Albert G., assignor.)	
	Robbins, Jerome J., <i>et al.</i> (See Hubbard, William C., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,569	Robbins, Joseph A., Medford, Mass. Medical compound	April 11, 1871
120,327	Same.....Galvanic battery	Oct. 24, 1871
112,633	Robbins, Joseph A., assignor to self and Martin W. Ford, Medford, Mass. Car- pet-fastening	Mar. 14, 1871
112,634	Robbins, Joseph A., assignor to self and Francis V. Holmes, Medford, Mass. Mold for suppositories	Mar. 14, 1871
115,897	Robbins, Julius, Auburn, N. Y. Snap-hook	June 13, 1871
4,573	Robbins, Louis S., assignor to Ann D. Brewton, Rye, N. Y. Process of extract- ing oily and fatty matters	Oct. 3, 1871
111,571	Robbins, Richard B., Adrian, Mich. Potato-digger. (Antedated Jan. 23, 1871) ..	Feb. 7, 1871
112,496	Same.....Sulky-cultivator	Mar. 7, 1871
120,775	Same.....Potato-digger	Nov. 7, 1871
115,525	Robbins, William E., and George Enderton, assignors of one-third interest to Abram B. Enderton, Sterling, Ill. Harrow	May 30, 1871
112,281	Robbins, Zenas C., Washington, D. C. Insulator for telegraph-wires	Feb. 23, 1871
118,555	Same.....Wooden horse-collar	Aug. 29, 1871
4,605	Robellaz, Jean G., and Louis A. G. Vielle. (See Vielle & Robellaz.) ..	
119,181	Roberts, Albert E., Des Moines, Iowa. Frame of school-desks (Design) ..	Jan. 24, 1871
115,240	Roberts, Albert F., Lexington, Ky. Corn-harvester	Sept. 19, 1871
111,005	Roberts, Alfred, France. Grain-drier. (Antedated May 19, 1871)	May 23, 1871
114,713	Roberts, Benjamin F., Lacona, Iowa. Lock for doors, &c	Jan. 17, 1871
	Same.....Stove-leg	May 9, 1871
121,730	Roberts, C. C., et al. (See Veber, William F., assignor.) ..	
	Roberts, Carlton W., Chicago, Ill. Striking-mechanism of clocks. (Antedated Dec. 2, 1871)	Dec. 12, 1871
112,848	Roberts, Edward A. L., Titusville, Pa. Manufacture of nitro-glycerine	Mar. 21, 1871
112,849	Same.....same	Mar. 21, 1871
112,850	Same.....Electric and other fuse head	Mar. 21, 1871
117,685	Same.....Wood and concrete pavement	Aug. 1, 1871
119,884	Same.....Preventing the clogging of oil-wells	Oct. 10, 1871
119,885	Same.....Process of preventing the clogging of oil-wells	Oct. 10, 1871
120,776	Same.....Explosive compound	Nov. 7, 1871
121,898	Same.....Manufacture of nitro-glycerine	Dec. 12, 1871
119,999	Roberts, George, Montreal, Canada. Cooking-stove	Oct. 17, 1871
115,898	Roberts, George S., Meredith Village, N. H. Adjustable mirror	June 13, 1871
118,277	Roberts, Henry, et al. (See Duff, Roberts & Nourse.) ..	
119,650	Roberts, Henry A., Boston, Mass. Ice-house for packing and curing meats	Aug. 22, 1871
121,422	Roberts, John, New Madison, Ohio. Pump	Oct. 3, 1871
	Roberts, Jonathan M., Burlington, N. J. Furnace for the manufacture of iron and steel	Nov. 28, 1871
	Same.....(See English, James, assignor.) ..	
117,860	Roberts, Joseph, Worcester, Mass. Corner-posts for wagon and carriage seats ..	Aug. 8, 1871
110,870	Roberts, Robert J., New York, N. Y. Drawer for stores	Jan. 10, 1871
114,202	Roberts, Thomas, assignor to self and Edward F. Folger, Baltimore, Md. Ad- mission of feed-water to steam-boilers	April 25, 1871
116,100	Roberts, Thomas B., Franklin, Ill. Cultivator	June 20, 1871
116,490	Roberts, Thomas D., deceased, by Edward M. Madden and Shattiece D. Roberts, administrators, Middletown, N. Y. Buck-saw frame	June 27, 1871
119,051	Roberts, Webster, Cleveland, Ohio. Machine for making horseshoes	Sept. 19, 1871
114,603	Roberts, William R., Philadelphia, Pa. Apparatus for generating hydrocarbon vapor	May 9, 1871
118,278	Roberts, William S., and Egbert H. Fiske, East Greenwich, R. I. Signal-lantern ..	Aug. 22, 1871
114,972	Robertson, Absalom, Seymour, Ind. Preserving and smoking meat	May 16, 1871
114,714	Robertson, Alexander. (See Henry, John, assignor.) ..	
	Robertson, Archie, East Rupert, Vt. Butter-pail, &c	May 9, 1871
	Robertson, Daniel M. See Buckminster, Ansel, assignor.) ..	
	Same.....(See Glines, Dearborn P., assignor.) ..	
111,572	Robertson, D. M., East Boston, and Jason A. Bidwell, Boston, Mass. Machine for threading screws	Feb. 7, 1871
117,568	Robertson, Harriet C., East Saginaw, Mich. Dish-washing machine	Aug. 1, 1871
110,789	Robertson, John F., and John G. Knapp. (See Knapp & Robertson.) ..	
	Robertson, John F., assignor of two-thirds interest to James H. Holly and John G. Knapp, Warwick, N. Y. Wrench	Jan. 3, 1871
113,931	Robertson, John H., New York, N. Y. Car-door	April 18, 1871
113,346	Robertson, John W., and Nathan C. Burson. (See Burson & Robertson.) ..	
4,239	Robertson, Judah Tourno, New York, N. Y. Printing-press	April 4, 1871
118,153	Robertson, Louis F., New York, N. Y. Compound to increase the friction be- tween belts and pulleys	Jan. 24, 1871
	Robertson, Reys O., Barnesville, Va. Tobacco-elevator. (Antedated Aug. 4, 1871)	Aug. 15, 1871
120,102	Robertson, Richard L., jr., New Orleans, La. Steam-boiler	Oct. 17, 1871
4,675	Robertson, T. J. W., Washington, D. C. Hand-stamp	Sept. 22, 1871
112,282	Same.....same	Dec. 12, 1871
112,965	Robertson, William D., Knoxville, Tenn. Sad and fluting iron	Feb. 28, 1871
112,283	Same.....Portable furnace	Mar. 21, 1871
	Robes, Andrew, Somerville, and John C. Chapman, Cambridgeport, Mass. Safe- ty-plug attachment to steam-boilers	Feb. 28, 1871
117,817	Robeson, Robert I., Oskaloosa, Iowa. Life-boat	Aug. 8, 1871
122,061	Robie, Henry W., Binghamton, N. Y. Latch for gates	Dec. 19, 1871
111,475	Robie, Jacob C., Binghamton, N. Y. Fluting-tongs	Jan. 31, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Rebil, Richard, <i>et al.</i> (See Colby, Calvin M., assignor.)	
112,383	Robin, Charles, Chester, Conn. Curtain-fixture.	Mar. 7, 1871
121,423	Robinson, Augustus W., Providence, R. I. Fair-leader for steering rods or chains	Nov. 28, 1871
	Robinson, Augustus W., and Calvin G. Cahoon. (See Cahoon & Robinson.)	
113,347	Robinson, Charles, Boston, Mass. Clothes-wringing press.	April 4, 1871
112,966	Robinson, Charles A., Florence, Ind. Hay and cotton press.	Mar. 21, 1871
110,790	Robinson, Charles E., Boston, Mass. Machine for sewing or working button-holes	Jan. 3, 1871
114,604	Same.....Tuck-creaser for sewing-machines.	May 9, 1871
112,635	Robinson, Charles E., assignor to self and Charles W. Brunner, Boston, Mass. Safety hasp or latch.	Mar. 14, 1871
	Robinson, Christopher. (See Lovejoy, William H., assignor.)	
121,550	Robinson, Fayette S., Boston, Mass. Lamp-burner.	Dec. 5, 1871
117,333	Robinson, Francis W., Richmond, Ind. Safety-coupling.	July 25, 1871
5,051	Robinson, George B., Derby, Conn. Carriage-spring. (Design)	June 27, 1871
116,354	Robinson, George W., Galesburgh, Ill. Bed-bottom.	June 27, 1871
5,339	Robinson, Herbert, assignor to Joseph Wild & Co., England. Carpet-pattern. (Design)	Oct. 31, 1871
5,340	Same.....Carpet-pattern. (Design)	Oct. 31, 1871
5,341	Same.....same. (Design)	Oct. 31, 1871
	Robinson, James A. (See Sager, Daniel, assignor.)	
114,715	Robinson, Job, Lawrence, Kans. Washing-machine.	May 9, 1871
121,297	Robinson, Joshua C., Hamilton, Nev. Tramway-saddle.	Nov. 28, 1871
115,641	Robinson, Norman W., Burlington, Vt. Rock-drilling machine.	June 6, 1871
122,194	Robinson, Peter, Harrisburgh, Ill. Apparatus for evaporating sugar, &c.	Dec. 26, 1871
	Robinson, Richard, <i>et al.</i> (See Wilcock, Robinson & Wilcock.)	
	Robinson, Robert M., <i>et al.</i> (See Winner, Joseph L., assignor.)	
5,451	Robinson, Samuel P., assignor to Robinson & Fowler Foundry Company, Plainfield, Conn. Cooking-range. (Design)	Dec. 26, 1871
114,861	Robinson, Stillman W., Champaign, Ill. Regulating cut-off valve-gear. (Ante-dated May 12, 1871)	May 16, 1871
21,198	120,198 Same.....Photograph-cutter. (Antedated Nov. 18, 1871)	Nov. 21, 1871
114,350	Robinson, Thomas C., assignor to George H. Sanborn, Boston, Mass. Paper-cutting machine.	May 2, 1871
4,274	Robinson, William, Brooklyn, N. Y. Electro-magnetic gate-opening apparatus. (Antedated July 8, 1870) (Reissue)	Feb. 21, 1871
117,463	Robinson, William F., Bellaire, Ohio. Pump.	July 25, 1871
	Robinson, William H. and Daniel H. (See Richards, Celius E., assignor.)	
117,464	Robinson, William S., assignor to self and Martin Morris, Oskaloosa, Iowa. Portable oven.	July 25, 1871
111,006	Robinson, William W., Ripon, Wis. Joint for railway-rails.	Jan. 17, 1871
	Robitzer, John P., and James B. Moore. (See Moore & Robitzer.) (Design)	
4,711	Robley, Joseph, assignor to William M. Brasher & Co., Brooklyn, N. Y. Floor oil-cloth pattern. (Design)	Mar. 14, 1871
4,712	Same.....Floor oil-cloth pattern. (Design)	Mar. 14, 1871
4,713	Same.....Same	Mar. 14, 1871
	Robnett, Lorenzo D., and Hiram R. Bowen. (See Bowen & Robnett.)	
	Roby, Samuel F., <i>et al.</i> (See Applegate, Jacobs & Roby.)	
112,851	Roche, Edward P., Bath, Me. Chafe-iron for wheeled vehicles.	Mar. 21, 1871
114,045	Roche, Patrick M., Cleveland, Ohio. Fire-place.	April 25, 1871
112,284	Rock, Adolph, New Orleans, La. Ice-machine.	Feb. 28, 1871
112,285	Same.....Process and apparatus for curing hides.	Feb. 28, 1871
118,746	Same.....Process of treating and preserving hides.	Sept. 5, 1871
115,106	Rock, Eugene, Greenvale, N. Y. Hay and cotton press.	May 23, 1871
	Rock Island Stove Company. (See White, Alexander, assignor.) (Reissue)	
111,150	Rockafellow, Samuel, Moline, Ill. Horse hay-rake.	Jan. 24, 1871
122,282	Same.....same	Dec. 26, 1871
	Rockwell, D. W. (See Rankin, Thomas L., assignor.)	
	Rockwell, Samuel O., and William H. Saint John. (See Saint John & Rockwell.)	
111,573	Rodden, William Henry, Toronto, Canada. Ferrule.	Feb. 7, 1871
120,458	Same.....Fork-tine.	Oct. 31, 1871
120,213	Roddick, Thomas, and James Lockhead, Scotland. Lubricator and anti-friction bearing. (Antedated Oct. 11, 1871)	Oct. 24, 1871
	Rodefer, Joseph, deceased, by Ann M. Rodefer, administratrix, Springfield, Ohio. Bedstead-fastening. (Extension)	May 10, 1871
4,432	Rodefer, Joseph, deceased, by Ann M. Rodefer, administratrix, assignor to James L. Haven & Co., Springfield, Ohio. Bedstead fastening. (Reissue)	June 20, 1871
116,355	Roden, Alfred, Mumford, Ohio. Plow.	June 27, 1871
4,590	Rodenhausen, Leonhard, Philadelphia, Pa. Street-sprinkling cart. (Reissue)	Oct. 10, 1871
112,636	Rodgers, Alexander, and Esau Tarrant, Muskegon, Mich. Machine for feeding fuel to furnaces.	Mar. 14, 1871
116,223	Rodgers, Amos Charles, assignor to self and James A. Hamilton, Suffield, Conn. Station-indicator.	June 20, 1871
113,348	Rodgers, Augusta M., Brooklyn, N. Y. Railroad-car heater.	April 4, 1871
114,605	Same.....Conveyor of smoke and cinders for locomotives.	May 9, 1871
119,790	Same.....same	Oct. 10, 1871
117,334	Rodkey, Jacob M., Indiana, Pa. Machine for laying out mortises.	July 25, 1871
115,984	Roe, David E., Elmira, N. Y. Broiler.	June 13, 1871
4,651	Same.....same. (Division A, reissue)	Nov. 28, 1871
4,652	Same.....same. (Division B, reissue)	Nov. 28, 1871
121,731	Roe, Giles Bolivar, Ogle County, Ill. Cattle-pump.	Dec. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
117,465	Roehrs, Henry, Washington, D. C. Pile-driver.....	July 25, 1871
120,538	Roelofs, Anthony, Philadelphia, Pa. Curtain-fixture.....	Oct. 31, 1871
120,168	Roelofs, Anthony, assignor to self and Daniel Bergin, Philadelphia, Pa. Curtain-fixture.....	Oct. 24, 1871
	Roeloss, John H., <i>et al.</i> (See Shrieves, Charles D., assignor.).....	
110,791	Roemer, William, Newark, N. J. Frame for traveling-bags, &c.....	Jan. 3, 1871
121,424	Rogers, Andross, Freeport, Ill. Field-roller.....	Nov. 28, 1871
5,229	Rogers, Benjamin F., Cambridge, Mass. Post-office bulletin-board.....	Aug. 22, 1871
4,459	Rogers, Charles D., Utica, N. Y., and Monroe P. Wilkins, Jersey City, N. J., assignors to the Manhattan Brush-Manufacturing Company. Method of holding bristles in brush-stocks..... (Reissue).....	July 4, 1871
119,723	Rogers, Edward F., assignor to self, Stoughton B. and Luther L. Holden, Chelsea, Mass. Composition for fire-brick.....	Oct. 10, 1871
120,459	Rogers, Edward F., Chelsea, Mass. Cooking-range.....	Oct. 31, 1871
	Rogers, Edwin, and Moses G. Crane. (See Crane & Rogers)..... (Reissue.)	
115,241	Rogers, Ezekiel, assignor to self and H. A. Brown, Waterford, Conn. Device for attaching booms to masts.....	May 23, 1871
122,283	Rogers, George S., Thetford, Vt. Machine for tentering cloth.....	Dec. 26, 1871
113,349	Rogers, George W., New York, N. Y. Ash-sifter.....	April 4, 1871
118,154	Rogers, Henry H., assignor to Charles Pratt Manufacturing Company, Brooklyn, N. Y. Nozzle for liquid-packages.....	Aug. 15, 1871
120,539	Same..... Distilling naphtha and other hydrocarbon liquids.....	Oct. 31, 1871
118,155	Rogers, Henry H., and George F. Walters, assignors to Charles Pratt Manufacturing Company, Brooklyn, N. Y. Screw-nozzle for liquid-packages.....	Aug. 15, 1871
	Rogers, Henry M. (See Gilmore, William, assignor.).....	
	Rogers, Hiram D. (See Gilliland, Ezra T., assignor)..... (Two cases.)	
	Rogers, Hiram D., and William Smith. (See Smith & Rogers)..... (Reissue.)	
	Rogers, Homer. (See Moore, Stephen, assignor)..... (Two cases.)	
	Rogers, Jeremiah. (See Miller, Curtis M., assignor.).....	
4,714	Rogers, John, New York, N. Y. Group of statuary..... (Design).....	Mar. 14, 1871
5,142	Same..... same..... (Design).....	July 25, 1871
5,143	Same..... same..... (Design).....	July 25, 1871
118,488	Rogers, John G., assignor to self and James C. Crandall, Van Buren County, Mich. Stamp-holder.....	Aug. 29, 1871
4,981	Rogers, John K., Brookline, Mass. Type..... (Design).....	June 6, 1871
120,898	Rogers, Noah, assignor to William H. Rogers, Thomasville, Ga. Fire-kindler.....	Nov. 14, 1871
4,535	Rogers, Robert E., and James Black, Philadelphia, Pa. Steam-generator. (Reissue).....	Aug. 29, 1871
118,974	Rogers, Silas P., assignor to self, J. H., J. W., and Stewart Watt, Belmont, Ohio. Device for operating sashes.....	Sept. 12, 1871
120,328	Rogers, Timothy, Fredericktown, Ohio. Blower.....	Oct. 24, 1871
	Rogers, William, <i>et al.</i> (See Fitts, R. Berkeley, assignor.).....	
118,556	Rogers, William L., Rochefort, Mo. Gutter-fastening.....	Aug. 29, 1871
113,932	Rogerson, W. Bolton, and Harvey Beyea, Paterson, N. J. Car-coupling.....	April 18, 1871
114,046	Rohdin, Peter, and Charles Ostergren, Chicago, Ill. Heating-stove.....	April 25, 1871
	Rohdin, Peter, and August Sahlstrom. (See Sahlstrom & Rohdin.).....	
122,284	Rohrer, Abraham P. and Christian F., and John H. Blose, Clark County, Ohio. Furrowing-plow.....	Dec. 26, 1871
121,899	Rohrer, Jeremiah, Lancaster, Pa. Refrigerator.....	Dec. 12, 1871
118,156	Rohrer, John, Springfield, Ohio. Fence.....	Aug. 15, 1871
122,062	Rohrer, John L., Upper Leacock, Pa., and Charles E. Roper, Canton, Ohio; said Roper assignor to E. Ball & Co. Harvester.....	Dec. 19, 1871
114,203	Rohrer, Martin, Polo, Ill. Tongue for harvesters.....	April 25, 1871
	Robb, Hermann, and David Boggs. (See Boggs & Robb.).....	
115,642	Rollhaus, Philip, jr., New York, N. Y. Range.....	June 6, 1871
	Rollings, John H., <i>et al.</i> (See Starr, William M., assignor.).....	
4,821	Rollins, La Forist, Bangor, Me. Stove..... (Design).....	April 18, 1871
	Romans, Joseph, and Gardner B. Gray. (See Gray & Romans.).....	
5,191	Rommeiks, Louis, Newark, N. J. Ornament on harness-saddles..... (Design).....	Aug. 8, 1871
113,570	Rommel, Charles, Elizabeth, N. J. Oil-cloth printing-machine.....	April 11, 1871
113,098	Roney, Hamilton, Dayton, Ohio. Plow.....	Mar. 23, 1871
111,476	Ronning, Even, Brodhead, Wis. Apparatus for preserving milk.....	Jan. 31, 1871
110,871	Rood, Ira, Elyria, Ohio. Lathe for turning wood.....	Jan. 10, 1871
117,686	Rook, Jesse H., Thomas S., and John S., York, Ill. Machine for tenoning spokes.....	Aug. 1, 1871
111,875	Roos, Emery, Trenton, Tenn. Device for obstructing ants.....	Feb. 14, 1871
	Roome, Henry C., and Edwin Holmes. (See Holmes & Roome)..... (Three cases.)	
112,078	Rooney, Thomas F., Chicago, Ill. Lifting-shovel.....	Feb. 21, 1871
114,351	Same..... Dust-pan.....	May 2, 1871
115,899	Same..... Mop.....	June 13, 1871
117,115	Root, Charles, Cleveland, Ohio. Fly-wheel.....	July 18, 1871
118,393	Root, Hezekiah, Union City, Ind. Gate.....	Aug. 22, 1871
	Root, Joseph, <i>et al.</i> (See Baker, Root & Case.).....	
111,384	Root, Parley D., Weston, N. Y. Portable shelf and support.....	Jan. 31, 1871
116,356	Roper, Charles E., Canton, Ohio. Thrashing-machine.....	June 27, 1871
	Roper, Charles E., and John L. Rohrer. (See Rohrer & Roper.).....	
117,931	Roper, Sylvester H., Roxbury, Mass. Knitting-machine, &c.....	Aug. 8, 1871
119,651	Same..... Boston, Mass. Knitting-machine needle.....	Oct. 3, 1871
111,335	Ropes, Julius, Ishpenning, Mich. Postage-stamp holder.....	Jan. 31, 1871
112,255	Rosback, Joshua A., Herman, N. Y. Cattle-stanchion. (Antedated Jan. 18, 1871.)	Jan. 24, 1871
113,933	Rose, Gervas E., Philadelphia, Pa. Welding-powder for iron, &c.....	April 18, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,256	Rose, H. Martin, Clinton, Ill. Cultivator.....	Jan. 24, 1871
120,460	Rose, James A., and George J. Mason, assignors to selves and Adam Harshberger, Prairie City, Ill. Shoe.....	Oct. 31, 1871
116,101	Rose, James C., and John F. Silversmith, Albany, N. Y. Feather-renovator....	June 20, 1871
114,973	Rose, John J., Elmwood, Ill. Wagon-brake.....	May 16, 1871
4,902	Rose, John R., and Edward L. Caley, assignors to Cox, Whiteman & Cox, Philadelphia, Pa. Plate of a cooking-stove..... (Design)..	May 9, 1871
4,910	Rose, John R., and Edward L. Caley, assignors to Orr, Painter & Co., Philadelphia, Pa. Cooking-stove..... (Design)..	May 16, 1871
117,335	Rose, Montgomery P., Napa, Cal. Plow.....	July 25, 1871
	Rose, William J., and Britton Capell. (See Helm, Shelby W., assignor.)	
117,687	Rosebrooks, John M., Hoosick Falls, N. Y. Harvester-rake.....	Aug. 1, 1871
120,777	Same.....same.....	Nov. 7, 1871
	Rosebrooks, John M., <i>et al.</i> (See Wood, Wood & Rosebrooks)... (Three cases.)	
	Rosello, Antonio. (See Craft, John Crew, assignor.)	
114,352	Rosenbaum, Albert S., New York, N. Y. Smoking-tobacco.....	May 2, 1871
115,361	Rosenstein, Moritz, Boston, Mass. Ice-cream freezer.....	May 30, 1871
120,329	Rosenthal, Gustav, Pittsburgh, Pa. Gas-fittings.....	Oct. 24, 1871
118,747	Rosentreter, Frank L., Des Moines, Iowa. Automatic fly-trap.....	Sept. 5, 1871
112,637	Rosenwax, Mark, New York, N. Y. Gas-burner.....	Mar. 14, 1871
118,489	Rosin, Henry C., Chicago, Ill. Device for cutting concaves.....	Aug. 29, 1871
114,862	Rosinsky, Nathan M., New York, N. Y. Sewing-machine for boots and shoes..	May 16, 1871
4,488	Rosner, George, assignor to Halbert S. Greenleaf, Rochester, N. Y. Permutation-lock..... (Reissue)..	July 25, 1871
118,395	Ross, Abbott Q., Cincinnati, Ohio. Machine for rolling and ramming roads.....	Aug. 22, 1871
120,399	Ross, Abbott Q., assignor to Alfred H. Brooks, Cincinnati, Ohio. Burglar-alarm.....	Oct. 31, 1871
	Ross, Alexander, and Maurice H. Utley. (See Utley & Ross.)	
115,985	Ross, Frederick A., and Silas De La Mater, Terre Haute, Ind. Buckle.....	June 13, 1871
112,286	Ross, George, Newport, Ky. Mode of molding and casting pipe-elbows.....	Feb. 28, 1871
118,279	Ross, Henderson, and John H. Clemens, Pittsburgh, Pa. Furnace for the manufacture of iron and steel.....	Aug. 22, 1871
4,609	Same.....Furnace for the manufacture of iron and steel..... (Reissue)..	Oct. 24, 1871
113,350	Ross, John G., Philadelphia, Pa. Machine for channeling and beveling the soles for boots and shoes.....	April 4, 1871
116,491	Same.....Heel-burnisher for boots and shoes.....	June 27, 1871
113,571	Ross, John J., Hernando, Miss. Dentists' instrument-stand.....	April 11, 1871
122,134	Ross, Joseph L., and Frederick C. Hanson, Charlestown, Mass. Drawing-table.....	Dec. 26, 1871
118,975	Ross, Oliver B., Bowen's Prairie, Iowa. Grain-binder.....	Sept. 12, 1871
	Ross, Robert, and Hosea Willard. (See Willard & Ross.) (Four cases.) (Extension.)	
	Same.....same..... (Disclaimer.)	
	Ross, Robert, and Bernhard E. Lehman. (See Lehman & Ross.)	
117,466	Ross, Robert P., Bethlehem, Pa. Stop-valve.....	July 25, 1871
120,214	Ross, Samuel, Washington, D. C. Lamp-burner.....	Oct. 24, 1871
	Ross, Samuel. (See Gray, William H., assignor)..... (Reissue.)	
	Ross, Samuel, and William H. Gray. (See Gray & Ross.)	
	Ross, Samuel P. (See Dunham & Widney, assignors.) (Two cases.) (Reissue.)	
110,681	Ross, Thomas, Rutland, Vt. Steam-engine.....	Jan. 3, 1871
120,169	Same.....Stone-dressing machine.....	Oct. 24, 1871
	Ross, Thomas, and Francis M. Strong. (See Strong & Ross)... (Disclaimer.)	
	Same.....same..... (Extension.)	
	Ross, Thomas, and Andrews T. Merriman. (See Merriman & Ross.) (Reissue.)	
119,535	Ross, William Frazier, Davenport, Iowa. Heating-stove.....	Oct. 3, 1871
120,330	Rossnagel, William, Newark, N. J. Hair-cloth.....	Oct. 24, 1871
120,331	Same.....Imitation hair-cloth.....	Oct. 24, 1871
111,386	Rost, Gottlieb, assignor to self, William Austin, jr., and John Jungermann, Union Hill, N. J. Hand-stamp.....	Jan. 31, 1871
113,450	Rote, John F., Reading, Pa. Ice-cream freezer.....	April 4, 1871
116,357	Roth, Charles F., Osceola, Iowa. Rotary steam-engine.....	June 27, 1871
115,900	Roth, Frederick, and Bernhard Furst, Lacon, Ill. Roller and marker for planting.	June 13, 1871
111,683	Roth, Henry, Virginia City, Nev. Pen-holder.....	Feb. 7, 1871
119,885	Roth, John G., New York, N. Y. Chimney-cowl. (Antedated Sept. 25, 1871)...	Oct. 10, 1871
121,130	Rothe, Julius A., assignor to Simon J. Stiner, Philadelphia, Pa. Manufacture of paper-pulp from straw, &c.....	Nov. 21, 1871
112,638	Rouard, Joseph, San Francisco, Cal. Bootjack.....	Mar. 14, 1871
111,477	Roulstone, Edward A. G., Boston, Mass. Street-sweeping machine.....	Jan. 31, 1871
116,492	Same.....Trunk.....	June 27, 1871
118,557	Rouseulp, Solomon, Thornville, Ohio, and Isaac B. Shambaugh, Scio, Ohio. Dumping-car.....	Aug. 29, 1871
4,325	Rouse, John, Palmyra, N. Y. Harness for horses..... (Reissue)..	April 4, 1871
114,606	Rouse, Wanton, assignor to George Draper & Son, Taunton, Mass. Loom take-up	May 9, 1871
	Rousseau, Achille J., <i>et al.</i> (See Gubbins, Richard R., assignor.)	
112,852	Roussillon, Jean, France. Wine-basket.....	Mar. 21, 1871
112,287	Routt, Ansell P., and John J. Keeton, Liberty Mills, Va. Self-loading scraper..	Feb. 28, 1871
118,881	Roux, Frederick, Stryker, Ohio. Sorghum-stripper.....	Sept. 12, 1871
	Rowan, Abram, and Duncan McMillan. (See McMillan & Roux.)	
	Rowand, Archibald H., Allegheny City, Pa. Binding books..... (Extension)..	April 26, 1871
114,607	Rowe, Arthur C., Chicago, Ill. Automatic liquor-discharge.....	May 9, 1871
121,551	Rowe, Enoch J., Eureka, Cal. Mortising-machine. (Antedated Nov. 27, 1871)...	Dec. 5, 1871
117,688	Rowe, George, England. Paper-file.....	Aug. 1, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,000	Rowe, James, Paterson, N. J. Telegraph-apparatus	Oct. 17, 1871
111,574	Rowe, Lewis S., assignor to self and U. T. Sheafe, Derby Line, Vt. Thill-coupling	Feb. 7, 1871
	Rowe, Oscar D. (See Buzzell, Freeman P., assignor.)	
	Rowell, Calvin C. (See Duncan, William, assignor.)	
113,934	Rowell, Guilford D., Menomonee Falls, Wis. Horse-hoe and cultivator	April 18, 1871
114,204	Rowland, Charles, Washington, D. C., and Nathan F. English, Hartland, Vt. Thread for sewing leather	April 25, 1871
117,818	Rowland, Charles, assignor to James A. and Augustus L. McCrea and Harry Cox, Washington, D. C. Card-envelope	Aug. 8, 1871
	Rowland, Jared, and William Haskell King. (See King & Rowland.)	
	Rowley, James F. (See Woodruff, James E., assignor.)	
	Rowley, Salmon B. (See Bissell, Melville R., assignor.)	
115,242	Royal, John, Moses A. Lentz, and Jeremiah M. Deibert, La Fayette, Ind. Car-coupling	May 23, 1871
118,748	Royce, Marvin Oven, East Cambridge, Mass. Miter-box	Sept. 5, 1871
118,976	Royce, Phineas A., Suspension Bridge, N. Y. Generating ozone	Sept. 12, 1871
	Royce, William A., Newburgh, N. Y. Machinery for compressing gaseous bodies	May 12, 1871
	Royer, J. R. (See Miller, Curtis, assignor.)	
114,974	Royer, Lewis C., Royerton, Ind. Grain-separator	May 16, 1871
115,362	Royer, Reuben R., Ephrata, Pa. Water-wheel	May 30, 1871
	Royle, Charles. (See Whitehouse, Isaac, assignor.)	
115,107	Rozenbury, Alexander Y., Waterloo, Iowa. Composition for stupefying bees	May 23, 1871
120,778	Ruddock, Asahel D., assignor of one-half interest to T. L. Terry, Berlin, Wis. Windmill	Nov. 7, 1871
	Rude, Perry C., et al. (See Tefft, James W., assignor.)	
117,209	Rudiger, J. Max, Brooklyn, N. Y. Folding-chair and life-preserver	July 18, 1871
111,876	Rudisill, Abraham, and Manrow Sell, Sell Station, Pa. Horse and cattle powder	Feb. 14, 1871
112,497	Rue, Nelson, Harrodsburgh, Ky. Hand-plow	Mar. 7, 1871
114,975	Rufe, Morgan, Doylestown, Pa. Skinning-knife	May 16, 1871
115,363	Ruge, William H., Holstein, Mo. Tobacco-pipe	May 30, 1871
118,280	Same.....Lamp-extinguisher	Aug. 22, 1871
113,799	Rugg, K. Julius, Cincinnati, Ohio. Brick-lifter	April 13, 1871
115,526	Ruggles, Caleb F., Henderson, Ky. Garden-cultivator	May 30, 1871
112,853	Ruggles, Stephen P., Boston, Mass. Steam-engine	Mar. 21, 1871
121,800	Rukenbrod, Jonathan K., Salem, Ohio. Addressing-machine	Dec. 12, 1871
117,569	Rulon, Henry M. and Jesse F., assignor to selves and William C. Clark, Monmouth, Ill. Steam-generator	Aug. 1, 1871
119,652	Rummell, E. H., Glen Beulah, Wis. Steam-boiler	Oct. 3, 1871
	Rumsey & Co. (See Eggleston, Leonard, assignor.)	(Design.)
113,697	Rumsey, George, Watkins, N. Y. Sliding-door hanger	April 11, 1871
116,102	Rundle, George L., Greenville, N. Y. Treatment of saccharine liquids	June 20, 1871
114,863	Rundquist, Peter, New York, N. Y. Steam-mangle	May 16, 1871
5,406	Runey, John, Somerville, Mass. Hanging-vase	Dec. 5, 1871
	Runge, Frederick W. (See Riker, De Witt, assignor.)	
111,257	Runk, George W., Franklin, La. Belt-tightener. (Antedated Jan. 14, 1871)	Jan. 24, 1871
116,493	Runstetter, Andrew, assignor to Samuel D. Cochran, Peoria, Ill. Convertible corn-planter	June 27, 1871
120,103	Runyon, Lewis, Newark, N. Y. Churn. (Antedated Oct. 13, 1871)	Oct. 17, 1871
121,199	Rupertus, Jacob, Philadelphia, Pa. Revolving fire-arm	Nov. 21, 1871
115,643	Rupp, John C., and Stephen Ott, Newark, Del. Car-coupling	June 6, 1871
116,494	Rupp, John C., assignor to Simon E. Pettee, Newark, Del. Rail joint or splice	June 27, 1871
120,104	Rusling, Joseph F., Lawrenceville, Pa. Bale-tie	Oct. 17, 1871
111,684	Russ, Charles E., Boston, Mass. Box for packing and transporting sheet-metal cans	Feb. 7, 1871
117,932	Same.....Die for making covers of sheet-metal boxes	Aug. 8, 1871
	Russ, Edwin, and Thomas S. Morris. (See Batchelor, William, assignor.)	
116,495	Russ, James J., Worcester, Mass. Knife-sharpener	June 27, 1871
116,496	Same.....Planing-machine	June 27, 1871
	Russell & Erwin Manufacturing Company. (See Lyons, Thomas, assignor.)	(Design.)
115,108	Russell, Albert J., Baltimore, Md. Invalid-bedstead	May 23, 1871
111,977	Russell, Daniel A., Vineland, N. J. Implement for slitting and looping rags for carpets, &c	Feb. 21, 1871
117,689	Russell, Edmund, Brooklyn, N. Y. Stop-valve	Aug. 1, 1871
112,498	Russell, Edward G., Ravenna, Ohio. Mechanical movement	Mar. 7, 1871
115,527	Russell, Edwin, assignor to self and Francis W. Platt, Waterbury, Conn. Lamp-shade supporter	May 30, 1871
116,224	Russell, Edwin, and Francis W. Platt, Waterbury, Conn. Lamp-supporter	June 20, 1871
113,099	Russell, Elijah H., Providence, R. I. Soldering spiral bands	Mar. 28, 1871
111,779	Russell, Ephraim, Minneapolis, Minn. Machine for cleaning and scouring wheat	Feb. 14, 1871
112,967	Russell, Jacob, Brooklyn, N. Y. Machine for husking corn	Mar. 21, 1871
117,467	Russell, James, Plymouth, Ind. School-desk	July 25, 1871
119,182	Russell, James, deceased, by Anthony Pollok, administrator, Washington, D. C. Puddling and other furnaces	Sept. 19, 1871
4,934	Russell, James B., Wheeling, W. Va. Lamp-shade	May 23, 1871
	Russell, John, and Francis L. Daniels. (See Daniels & Russell.)	
	Russell, John E., and Joseph Nelson Pitts. (See Pitts & Russell.)	
112,499	Russell, Lyman Alphonzo, Shrewsbury, Vt. Railway-car brake	Mar. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,800	Russell, Nathaniel, Plymouth, Mass. Planing-tool	April 18, 1871
	Russell, Rufus A. (<i>See Ellis, Willard C., assignor.</i>)	
	Russell, Shepard, <i>et al.</i> (<i>See Hatch, Warren D., assignor.</i>)	
121,664	Russell, Titus H., Lebanon, N. H. Saw-mill carriage	Dec. 5, 1871
118,056	Russell, Titus H., assignor to self, Henry C. Mahurin, and Frederick A. Hatch, Lebanon, N. H. Horse-power. (Antedated Aug. 2, 1871)	Aug. 15, 1871
118,157	Russell, Titus H., assignor to self and Henry C. Mahurin, Lebanon, N. H. Device for fastening neck-yokes to poles. (Antedated Aug. 4, 1871)	Aug. 15, 1871
113,935	Rust, August, Egg Harbor City, N. J. Shoemakers' jack	April 18, 1871
116,871	Rust, Jacob L., Keithburgh, Ill. Churn	July 11, 1871
	Ruth, Aaron. (<i>See Whitaker, Samuel, assignor.</i>)	
	Same.....same.....(Reissue.)	
	Ruth, Davis T. (<i>See Gray & Romans, assignors.</i>)	
4,415	Rutherford, Clementine D., assignor to David H. Fanning, Brooklyn, N. Y. Corset	June 6, 1871
	Rutledge, Edward C., and William K. Wallace. (<i>See Wallace & Rutledge.</i>)	
116,497	Ruze, Alfred, assignor to Simon H. Sibley, France. Process of manufacturing cloth	June 27, 1871
116,498	Same.....Woven cloth	June 27, 1871
119,653	Ryan, John, Detroit, Mich. Cigar mold and press	Oct. 3, 1871
118,057	Ryan, John A., Cleveland, Ohio. Letter-box	Aug. 15, 1871
111,387	Ryan, Joseph, Saint Louis, Mo. Water-grate	Jan. 31, 1871
	Ryan, Michael, and Felix W. Tally. (<i>See Tally & Ryan.</i>)	
114,716	Ryan, Michael G., assignor to self, R. C. Paul, and J. J. Hoblitzell, Frostburgh, Md. Lubricator	May 9, 1871
116,499	Rycroft, John, and Lucius A. White, Millbury, Mass. Shuttle-guard for looms ..	June 27, 1871
113,572	Ryder, Benjamin, jr., South Orrington, Me. Fish-net supporter	April 11, 1871
112,740	Ryder, Benjamin F., assignor to Sargent & Co., New York, N. Y. Caster for sewing-machines	Mar. 14, 1871
4,849	Ryder, Edward P., New York, N. Y. Toy steam-engine.....(Design) ..	April 25, 1871
5,004	Same.....Brooklyn, N. Y. Toy steam-engine.....(Design) ..	June 13, 1871
120,105	Ryder, Henry, New Bedford, Mass. Candle	Oct. 17, 1871
114,864	Ryder, James F., Cleveland, Ohio. Non-corrosive metal-coated plate-holder ..	May 16, 1871
119,183	Ryder, Truman H., Newton, Ohio. Thill-coupling	Sept. 19, 1871
118,281	Ryding, Elmina C., Tully, N. Y. Truss-hoop	Aug. 22, 1871
	Rynerson, James H., and John Worrell. (<i>See Worrell & Rynerson.</i>) (Three cases.)	
116,994	Sabbaton, Frederick A., Troy, N. Y. Manufacture of hydrocarbon-gas.....	July 11, 1871
116,995	Sabin, Randolph E., West Springfield, Mass. Fish-nursery	July 11, 1871
119,282	Saffer, Anton, New York, N. Y. Machine for stone-polishing. (Antedated Sept. 11, 1871)	Sept. 26, 1871
	Safford, Levi, and Miles H. Card. (<i>See Card & Safford.</i>)	
114,205	Safford, Albert Gallatin, Boston, Mass. Pole-adjuster for horse-cars	April 25, 1871
118,490	Safford, James B., Poughkeepsie, N. Y. Stop for sewing-machines	Aug. 29, 1871
117,468	Safford, Mark, assignor to Jonathan Holbrook, Melrose, Mass. Screw-press ..	July 25, 1871
117,210	Sage, Franklin I., Cromwell, Conn. Water-wheel	July 25, 1871
119,654	Sager, Daniel, assignor to James A. Robinson, New York, N. Y. Corn-husker ..	Oct. 3, 1871
119,655	Sager, Henry, Penn Station, Pa. Wagon-brake	Oct. 3, 1871
113,936	Sager, William J., Milesburgh, Pa. Corn-planter	April 18, 1871
113,351	Sahlstrom, August, Chicago, Ill. Foot-scraper	April 4, 1871
116,500	Same.....Comb-cleaner	June 27, 1871
116,501	Sahlstrom, August, and Peter Rohdin, Chicago, Ill. Egg-detector	June 27, 1871
121,665	Saint-Cyr, Edelmur De Hays, Lowell, Mass. Medical compound or coffee-antidote	Dec. 5, 1871
111,780	Saladee, Cyrus W., Saint Catharine's, Canada. Gate	Feb. 14, 1871
113,451	Same.....Spring for wheeled-vehicles	April 4, 1871
117,819	Same.....Spring for vehicles	Aug. 8, 1871
120,001	Same.....Thill-coupling	Oct. 17, 1871
120,002	Same.....same	Oct. 17, 1871
120,106	Same.....Carriage	Oct. 17, 1871
120,107	Same.....Top prop and joint for carriages	Oct. 17, 1871
122,063	Same.....Top joints and their connections	Dec. 19, 1871
113,573	Saladee, Cyrus W., assignor to C. W. Saladee & Co., Saint Catharine's, Canada. Spring for wheeled vehicles	April 11, 1871
113,574	Same.....same	April 11, 1871
119,243	Salgee, Oliver, Brooklyn, N. Y. Coupling-faucet	Sept. 26, 1871
5,052	Salisbury, John, Scituate, R. I. Bobbin-score.....(Design) ..	June 27, 1871
	Salisbury, Stephen B., and John McCahey. (<i>See McCahey & Salisbury.</i>)	
	Salladay, Lemuel, and Adolph Brase. (<i>See Brase & Salladay.</i>)	
111,978	Salmon, Adolphe, assignor to Cahn & Salmon, New York, N. Y. Shirt.....	Feb. 21, 1871
111,685	Salvo, Christopher, assignor to self, Joseph C. Brewer, and Robert W. Milford, Columbus, Ga. Fertilizer-distributor	Feb. 7, 1871
	Sames, Peter, and Theophilus F. Bertrand. (<i>See Bertrand & Sames.</i>) (Two cases.) (Reissue.)	
113,801	Sammer, Richard, Vineland, N. J. Apparatus for converting rotary into reciprocate motion by means of friction	April 18, 1871
119,411	Sample, John, Franklin County, Miss. Seed-planter and fertilizer-distributor. (Antedated Sept. 23, 1871)	Sept. 26, 1871
111,007	Sample, Newton C., Penningtonville, Pa. Open link for coupling double and whiffletrees	Jan. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Sampson, Edward C. (<i>See</i> Meyer, Charles T., assignor.) (Twenty-one cases.) (Design.)	
121,200	Sampson, Elnathan, deceased, (by Amanda A. Sampson, administratrix,) assignor to self, Stephen R., and Hiram Andres, Nassau, N. Y. Platform-scale	Nov. 21, 1871
112,079	Sampson, Orestes, Petersburg, Ill. Combined gang-plow and cultivator. (Antedated Feb. 20, 1871)	Feb. 21, 1871
	Sampson, Thomas, <i>et al.</i> (<i>See</i> Thurston, John A., assignor.)	
120,108	Sampson, William S., assignor to self, Ruth Ann and Harriet Van Bunschooten, New York, N. Y. Ventilating grain-vessels	Oct. 17, 1871
120,109	Same.....Ventilating grain-cars	Oct. 17, 1871
115,528	Samuels, Marks, San Francisco, Cal. Lamp	May 30, 1871
	Sanborn, George H. (<i>See</i> Glass, John, assignor.)	
	Same.....(<i>See</i> Robinson, Thomas E., assignor.)	
	Same.....(<i>See</i> Tregurtha, James, assignor.)	
	Same.....(<i>See</i> Lowey, Robert G., assignor.)	
120,170	Sanborn, Jesse K., Sandy Hill, N. Y. Machine for edging boards	Oct. 24, 1871
	Sanborn, Joseph S. (<i>See</i> Neirness, John, assignor.)	
117,933	Sanborn, Rufus S., Rockford, Ill. Railway-rail	Aug. 8, 1871
121,732	Same.....same	Dec. 12, 1871
	Sandell, John L., <i>et al.</i> (<i>See</i> Shears, Albert L., assignor.)	
111,877	Sander, Enno, Saint Louis, Mo. Fire-extinguisher	Feb. 14, 1871
114,608	Sanders, Henry, Utica, N. Y. Door-latch. (Antedated May 2, 1871)	May 9, 1871
120,899	Sanders, Martin R., Cambria Township, Pa. Bee-hive	Nov. 14, 1871
	Sanderson, George A., and William W. Lowerree. (<i>See</i> Lowerree & Sanderson.)	
114,865	Sanderson, Robert, Cleveland, Ohio. Steam-valve and governor	May 16, 1871
120,900	Same.....Roofing	Nov. 14, 1871
120,901	Same.....Bakers' oven	Nov. 14, 1871
	Sanderson, William. (<i>See</i> Smith, Isaac, assignor.) (Two cases.)	
117,469	Sandoe, Daniel, Orangeville, Ill. Water-wheel	July 25, 1871
116,103	Sands, William T., New York, N. Y. Safety-apparatus for hoisting-machines	June 20, 1871
113,352	Sandt, Jacob S. Washing and wringing machine	April 4, 1871
120,540	Sanford, Addison V., assignor to self and William P. Pope, Binghamton, N. Y. Sash-holder	Oct. 31, 1871
112,500	Sanford, David, Ashton, Ill. Stove-pipe cleaner	Mar. 7, 1871
122,285	Sanford, Gelston, Bergen Point, N. J. Machine for untwisting and picking hair-rope	Dec. 26, 1871
	Sanford, John E. M., <i>et al.</i> (<i>See</i> Close, Walter R., assignor.)	
115,640	Sanford, Watson, Brooklyn, N. Y. Fire-place range	June 6, 1871
4,526	Same.....Cooking-range	Aug. 22, 1871
121,733	Same.....Stove-grate	Dec. 12, 1871
	Sanford, Whiting S., <i>et al.</i> (<i>See</i> Hoggson, Samuel J., assignor.)	
	Sanner, James B. (<i>See</i> Smith, Robert H., assignor.)	
110,872	Sansom, John D., Peoria, Ill. Man-hole plate for steam-boilers	Jan. 10, 1871
112,184	Sapp, Leo W., Cleveland, Ohio. Sewing-machine treadle	Feb. 23, 1871
	Sargent & Co. (<i>See</i> Sparkes, William E., assignor.) (Two cases.)	
	Same.....(<i>See</i> Ryder, Benjamin F., assignor.)	
	Same.....(<i>See</i> Wunder, Adolph, assignor.) (Six cases.) (Design.)	
	Same.....(<i>See</i> Bradford, Purnmort, assignor.) (Design.)	
	Same.....same (Two cases.)	
	Same.....(<i>See</i> Sparks, William E., assignor.) (Two cases.) (Design.)	
	Same.....(<i>See</i> Brocksieper, Frederick W., assignor.) (Design.)	
	Same.....(<i>See</i> Munson & Bradford, assignors.) (Design.)	
114,048	Sargent, Charles G., Westford, Mass. Machine for oiling wool, &c	April 25, 1871
118,158	Same.....Graniteville, Mass. Machine for burring and cleaning wool, &c	Aug. 15, 1871
114,047	Sargent, Charles R., Newburyport, Mass. Seed-planter	April 25, 1871
121,201	Sargent, James, and Lyman F. Munger, Rochester, N. Y. Bottle-faucet	Nov. 21, 1871
115,645	Sargent, Joseph B., New Haven, Conn. Door-bolt	June 6, 1871
5,192	Same.....Drawer-pull	Aug. 8, 1871
118,647	Same.....Journal-box	Aug. 29, 1871
5,262	Same.....Bird-cage hook	Sept. 12, 1871
112,501	Sargent, Joseph B., and Purnmort Bradford, assignors to Sargent & Co., New Haven, Conn. Twine-holder	Mar. 7, 1871
	Sargent, Joseph F., and Sumner Holmes. (<i>See</i> Holmes & Sargent.)	
113,100	Sargent, Ransom T., Norwich, Vt. Suspension toilet-mirror	Mar. 23, 1871
	Sargent, T. P., <i>et al.</i> (<i>See</i> Bird, Charles, assignor.)	
114,353	Sartwell, Samuel S., Camden, N. Y. Car-coupling	May 2, 1871
	Sarven, James C., New Haven, Conn. Carriage-wheel (Extension)	June 8, 1871
121,006	Sater, John D., assignor to Sater & Son, Greensburgh, Ind. Line-holder	Nov. 14, 1871
110,682	Sattison, Jacob, Ripley Township, Ohio. Cultivator	Jan. 3, 1871
121,007	Sattler, David, Napoleon, Ohio. Saw	Nov. 14, 1871
111,781	Sattley, Marshall, Taylorville, Ill. Cultivator	Feb. 14, 1871
116,502	Saul, Sarah E., Brooklyn, N. Y. See-saw. (Antedated June 19, 1871)	June 27, 1871
119,412	Sault, John, South Manchester, Conn. Self-oiling journal-box	Sept. 26, 1871
113,101	Sault, Thomas, New Haven, Conn. Cut-off attachment to slide-valves	Mar. 23, 1871
116,633	Saunders, Benjamin, Claverack, N. Y. Seed-planter	July 4, 1871
119,476	Saunders, Hiram, assignor to Edward A. Price, Chester, Pa. Composition for paving	Oct. 3, 1871
122,064	Saunders, Isaac C., Trenton, Mich. Apparatus for sharpening harvester-knives	Dec. 19, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,109	Saurman, Mary A. H., Philadelphia, Pa. Laundry-box.....	May 23, 1871
111,686	Sauter, Charles, assignor to self and G. Schutz, New York, N. Y. Machine for degenerating malt.....	Feb. 7, 1871
	Savage, Elliot, West Meriden, Conn. Machine for cutting and bending sheet-metal.....(Extension).....	Mar. 14, 1871
118,882	Same.....Hardening steel.....	Sept. 12, 1871
	Savage, J. B. (See Hull, Daniel H., assignor).....(Reissue.)	
111,258	Savary, George T., deceased, by N. Jennie Savary, administratrix, assignor to John N. Pike, Newburyport, Mass. Mowing-machine.....	Jan. 24, 1871
	Savery, Charles C. (See Liming, John, assignor).....(Two cases.) (Design.)	
	Same.....same.	
4,685	Savery, Thomas H., Wilmington, Del. Expanding-pulley.....(Reissue).....	Dec. 26, 1871
110,683	Savoral, Edvard, New York, N. Y. Wind-mill. (Antedated Dec. 31, 1870).....	Jan. 3, 1871
120,902	Sawtell, Henry H., Randolph, N. Y. Fountain.....	Nov. 14, 1871
	Sawyer, Daniel, and Samuel J. Peet. (See Peet & Sawyer.)	
	Sawyer, Edwin, <i>et al.</i> (See Hastings, Emory B., assignor.)	
120,215	Sawyer, Francis A., 2d, Boston, Mass. Process of restoring waste indigo.....	Oct. 24, 1871
114,717	Sawyer, Harvey, assignor to C. H. Sawyer, Wilson, N. C. Medical compound for the cure of rheumatism, &c.....	May 9, 1871
118,819	Sawyer, Henry, Boston, Mass. Putting up powders.....	Sept. 12, 1871
114,354	Sawyer, Henry A. and Ransom G., Milwaukee, Wis. Leather-polish.....	May 2, 1871
113,375	Sawyer, Jacob H., Lowell, Mass. Ring-spinning machines.....	April 11, 1871
117,924	Same.....Fastening for spinning-rings.....	Aug. 8, 1871
118,282	Same.....Spindle-bearing for spinning-machines.....	Aug. 22, 1871
119,283	Same.....same.....	Sept. 26, 1871
116,996	Sawyer, Lodowick L., San Francisco, Cal. Curtain-fixture.....	July 11, 1871
114,049	Sawyer, Parker W., Gray, Me. Water-elevator.....	April 25, 1871
118,058	Sawyer, Samuel, assignor to Miller's Falls Manufacturing Company, Erving, Mass. Bit-stock.....	Aug. 15, 1871
117,690	Sawyer, William K., Three Oaks, Mich. Bee-hive.....	Aug. 1, 1871
	Saxe, George G., <i>et al.</i> (See La Monte, Saxe & Clayton.)	
113,452	Saylor, Daniel, and Lauritz Anderson, Chicago, Ill. Table-leaf support.....	April 4, 1871
119,413	Saylor, David O., Allentown, Pa. Manufacture of cement.....	Sept. 26, 1871
	Saylor, Oliver, and Clement S. Foster. (See Foster & Saylor.)	
	Sayre, Charles H., Utica, N. Y. Cultivator.....(Extension).....	Aug. 17, 1871
	Scaife, Oliver P. (See Hill & Thumm, assignors.)	
111,478	Scaife, William B., Pittsburgh, Pa. Method of flanging boiler-heads.....	Jan. 31, 1871
4,393	Same.....Kitchen-boiler.....(Reissue of design).....	May 23, 1871
4,467	Same.....Boiler for ranges, stoves, &c.....(Reissue).....	July 11, 1871
114,609	Scarlett, William, Aurora, Ill. Lamp.....	May 9, 1871
121,008	Same.....same.....	Nov. 14, 1871
116,874	Schaefer, Charles W., Philadelphia, Pa. Knapsack.....	July 11, 1871
113,453	Schafhirt, Adolph J., Washington, D. C. Apparatus for spreading medical plasters.....	April 4, 1871
111,151	Scharf, Samuel R., assignor to self and Hugh M. Funston, Baltimore, Md. Asphaltic pavement.....	Jan. 24, 1871
114,355	Schenck, Charles S., New York, N. Y. Bird-cage mat.....	May 2, 1871
118,394	Schenck, Junius, Brooklyn, N. Y. Packing for pistons, cylinders, valves, &c.....	Aug. 22, 1871
111,878	Schepler, John, assignor to self and Samuel Stockton, Lambertville, N. J. Bedstead-fastening.....	Feb. 14, 1871
119,791	Scherer, Gottlieb, South Boston, Mass. Pan-scraper.....	Oct. 10, 1871
118,648	Scherich, Christian, Lisburn, Pa. Check-spring for vehicles.....	Aug. 29, 1871
118,558	Schermerhorn, John, Waterford, Pa. Washing-machine.....	Aug. 29, 1871
111,479	Schieder, John, New York, N. Y. Journal-box.....	Jan. 31, 1871
121,131	Schilling, Charles, Auburn, N. Y. Let-off mechanism for looms.....	Nov. 21, 1871
116,503	Schilling, Conrad, Pekin, Ill. Molding-machine.....	June 27, 1871
119,792	Schilling, Cornelius, New York, N. Y. Propulsion of canal-boats.....	Oct. 10, 1871
111,480	Schillinger, John J., New York, N. Y. Concrete-block for paving.....	Jan. 31, 1871
111,879	Same.....Concrete-pavement.....	Feb. 14, 1871
4,364	Same.....same.....(Reissue).....	May 2, 1871
119,793	Schindler, Charles A., West Hoboken, N. J. Piano-stool.....	Oct. 10, 1871
120,110	Same.....Photographic posing-chair.....	Oct. 17, 1871
5,053	Schindler, Louis, Saint Peter, Minn. Buckle.....(Design).....	June 27, 1871
119,794	Schlag, August, Brooklyn, N. Y. School-desk.....	Oct. 10, 1871
111,254	Schleicher, Charles, Louisville, Ky. Lath-machine.....	Jan. 24, 1871
115,529	Schleicher, Charles, assignor to A. Liebenroth & Von Auw, Prussia. Needle-wrapper.....	May 30, 1871
113,059	Schlesser, Nickolas, Chicago, Ill. Hydrant.....	Aug. 15, 1871
114,866	Schley, John, Savannah, Ga. Mode of applying motive-power.....	May 16, 1871
118,060	Same.....Cotton-press.....	Aug. 15, 1871
120,332	Same.....Street-crossing.....	Oct. 24, 1871
112,185	Schlich, Friedrich, assignor to self and Adrian Feyh, New York, N. Y. Bottle-stopper.....	Feb. 28, 1871
119,052	Schlicher, Philipp, Louisville, Ky. Medical compound for the hair.....	Sept. 19, 1871
116,759	Schliecker, Peter F., assignor to self and A. Clinton Plant, Baltimore, Md. Paper-pulp.....	July 4, 1871
118,749	Schlosser, John, Piqua, Ohio. Clod-crusher.....	Sept. 5, 1871
119,414	Schmackers, Anton, assignor to J. A. Fay & Co., Cincinnati, Ohio. Clamp for mortising-machines.....	Sept. 26, 1871
	Schmid, Paul Henry, New York, N. Y. Medical compound for purifying the blood.....	Oct. 24, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
5,230	Schmidlin, Charles, Memphis, Tenn. Cigar-box..... (Design)..	Aug. 22, 1871
117,470	Schmidlin, William G., Hoboken, N. J., and Jeremiah W. Driscoll, New York, N. Y. Street-lamp	July 25, 1871
121,065	Schmidt, August F., Davenport, Iowa. Wine-filter.....	Nov. 21, 1871
120,671	Schmidt, August G., New York, N. Y. Clothes-rack.....	Nov. 7, 1871
113,454	Schmidt, Augustus T., Pittsburgh, Pa. Treating paper and vegetable fibrous substances	April 4, 1871
117,935	Schmidt, Ferdinand C., Newark, N. J. Satchels, &c.....	Aug. 8, 1871
119,536	Schmidt, Friedrich and William, Cincinnati, Ohio. Curtain-rack.....	Oct. 3, 1871
115,772	Schmidt, George F., assignor to Rudolph Schmidt, Prussia. Riding-saddle.....	June 6, 1871
122,195	Schmidt, Johann, assignor to Samuel Hirschl, Austria. Liquid-measuring apparatus	Dec. 26, 1871
119,244	Schmidt, John H., Stockertown, Pa. Washing-machine.....	Sept. 26, 1871
	Schmidt, Waldimer A., <i>et al.</i> (See Taylor, Thomas, assignor.)	
113,576	Schmitt, Charles C., New York, N. Y. Sofa-bed	April 11, 1871
111,260	Schmults, Eide H., and Jacob Baker, New York, N. Y. Ice pick and hook	Jan. 24, 1871
111,261	Schnabel, Adolph, and Theodore Henning, Grand Duchy of Baden. Railway-switch and signal-apparatus	Jan. 24, 1871
111,388	Schnantz, Elias, New York, N. Y. Roll for hair-dressing. (Antedated Jan. 21, 1871)	Jan. 31, 1871
120,903	Schneider, Charles, Newark, N. J. Machine for threading bolts.....	Nov. 14, 1871
	Schneider, Louis, <i>et al.</i> (See Windhausen, Franz, assignor). (Two cases.)	
	Same..... same..... (Reissue.)	
117,336	Schneider, Wilhelm, Davenport, Iowa. Carrousel.....	July 25, 1871
114,610	Schnell, John C., assignor to self and Eberhard Cammerer, Cincinnati, Ohio. Combined rectifier and filter.....	May 9, 1871
120,541	Schnepf, Charles, Marietta, Ohio. Alarm-lock	Oct. 31, 1871
	Schock, Jacob L. (See McNamee, John T., assignor.)	
112,639	Schoeller, Earnest A., assignor to self and Christian Balsley, Connellsville, Pa. Window for railway-cars	Mar. 14, 1871
110,684	Schoenberg, Abraham, New York, N. Y. Casting bar-solder	Jan. 3, 1871
112,384	Schoenberg, Isaac, jr., New York, N. Y. Machine for making printers' leads.....	Mar. 7, 1871
119,184	Schoenbrun, Sigmund, New York, N. Y. Attachment for piano-pedals.....	Sept. 19, 1871
114,718	Schoeney, Lazarus, New York, N. Y. Fountain.....	May 9, 1871
120,400	Schoenstein, Ferdinand B., and J. August Klein, San Francisco, Cal. Grape-crusher	Oct. 31, 1871
116,225	Schofield, George W., United States Army. Breech-loading fire-arm.....	June 20, 1871
119,656	Same..... Screw-driver for fire-arms	Oct. 3, 1871
122,286	Same..... Combined band-punch and screw-driver	Dec. 26, 1871
120,779	Schofield, John, Worcester, Mass. Rein-check, &c.....	Nov. 7, 1871
121,202	Same..... Automatic check-rein attachment.....	Nov. 21, 1871
4,256	Schofield, Silas C., Chicago, Ill. Shaft-coupling..... (Reissue.)	Feb. 7, 1871
115,646	Same..... Corn-sheller.....	June 6, 1871
111,089	Schofield, Socrates, Providence, R. I. Cigar-filling. (Antedated Jan. 7, 1871)	Jan. 17, 1871
121,298	Same..... Cigar-machine. (Antedated Nov. 11, 1871)	Nov. 28, 1871
118,750	Scholl, George, New Philadelphia, Ohio. Bathing-apparatus.....	Sept. 5, 1871
121,816	Scholl, Peter, Cashtown, Pa. Clamp for holding timber.....	Dec. 12, 1871
121,901	Schonberg, David Louis, New York, N. Y. Signal for railroad-trains.....	Dec. 12, 1871
110,792	Schooley, John C., New York, N. Y. Target-game.....	Jan. 3, 1871
112,854	Schoonmaker, John H., assignor to self and Alexander Selkirk, Bethlehem, N. Y. Horse hay-rake. (Antedated March 10, 1871)	Mar. 21, 1871
111,979	Schott, Joseph, Peoria, Ill. Corn-planter. (Antedated Feb. 6, 1871)	Feb. 21, 1871
111,481	Schottky, Herman A., Stapleton, N. Y., and Theodore Simendinger, New York, N. Y. Lamp	Jan. 31, 1871
110,793	Schrader, John C., and Carl A. Mathiesen, New York, N. Y. Steering-apparatus	Jan. 3, 1871
116,504	Schreiber, Adolph, New York, N. Y. Treating saccharine liquids.....	June 27, 1871
112,640	Schreiner, Henry, Philadelphia, Pa. Horse-car starter.....	Mar. 14, 1871
119,886	Schroeder, Julius, assignor to L. Weinrich, Austria. Process of obtaining sugar from molasses	Oct. 10, 1871
121,666	Schroeder, Theodore A., and Herman Wuest, Hoboken, N. J. Life-detector for coffins	Dec. 5, 1871
121,203	Schroyer, Joseph J., assignor of one-half interest to Elijah C. Matheny, Springfield, Ill. Washing-machine.....	Nov. 21, 1871
122,196	Schucht, John H., assignor to Charles F. L. Goffrie, England. Sounding-board for musical instruments	Dec. 26, 1871
111,482	Schuckers, Jacobs W., assignor to Isaac A. Sheppard, Philadelphia, Pa. Harvester	Jan. 31, 1871
112,288	Schuckers, Jacobs W., assignor to Jonathan W. Grubb, Philadelphia, Pa. Harvester	Feb. 28, 1871
114,050	Schultdrees, Henri, Brookville, Ind. Churn.....	April 25, 1871
5,054	Schultz, F. Augustus, Mount Pleasant, Iowa. Buckle and ring..... (Design)..	June 27, 1871
116,505	Schultz, F. Wilhelm, Mount Pleasant, Iowa. Wagon-brake	June 27, 1871
113,577	Schultz, Gustav Adolph, Louisville, Ky. Button	April 11, 1871
116,997	Schultz, Joseph, assignor to self and Leopold Hecht, New York, N. Y. Compound for coating textile fabrics.....	July 11, 1871
118,061	Schulz, Albert B., Baltimore, Md. Gutter-strap.....	Aug. 15, 1871
4,294	Schulze, Louis, Baltimore, Md. Apparatus for pitching barrels..... (Reissue.)	Mar. 7, 1871
115,530	Same..... Apparatus for pitching barrels, casks, &c.....	May 30, 1871
117,471	Schumacher, Paul, San Francisco, Cal. Machine for making blind-slats. (Antedated July 24, 1871)	July 23, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,009	Schurr, Christian L., and William G. Rehbein, Baltimore, Md. Welding copper.	Nov. 14, 1871
	Schussler, August, and Charles F. Dieterich. (<i>See Dieterich & Schussler.</i>)	
114,206	Schutte, Henry, Kansas City, Mo. Gas-regulator	April 25, 1871
116,760	Schutz, Charles M., East Cambridge, Mass. Traveling-bag, &c.	July 4, 1871
	Schutz, G. (<i>See Sauter, Charles, assignor.</i>)	
121,667	Schuyler, Daniel, Titusville, Pa. Stove-bottom	Dec. 5, 1871
115,531	Schwagerl, Edward O., Saint Louis, Mo. Tree-box	May 30, 1871
4,675	Schwagerl, Edward O., assignor to self and Shickle, Harrison & Co., Saint Louis, Mo. Park-seat	(Design) Feb. 21, 1871
111,880	Schwandt, Henry, New Orleans, La. Spur-attachment to overshoes	Feb. 14, 1871
110,685	Schwaner, John W., Egg Harbor City, N. J. Die for forming horse-collar shells	Jan. 3, 1871
113,802	Same. Horse-collar	April 18, 1871
	Schwartz, Michael. (<i>See Leach, Rufus, assignor.</i>)	
113,578	Schwartz, Theodore, New York, N. Y. Kindling-material	April 11, 1871
120,780	Schwenkel, Ludwig F., New York, N. Y. Extension-chair	Nov. 7, 1871
116,634	Schwerin, Morris, Newark, N. J. Device for fastening handles to satchels, &c.	July 4, 1871
119,053	Scidmore, Oscar, Albany, N. Y. Medical compound for cure of fever and ague	Sept. 19, 1871
116,998	Scofield, Levi, Watertown, Wis. Seed-tube for corn-planters	July 11, 1871
111,687	Scofield, Levi, assignor to self and Justin B. Wait, Watertown, Wis. Corn-planter	Feb. 7, 1871
112,741	Same. Seed-tube for corn-planters	Mar. 14, 1871
121,204	Same. Corn-planter	Nov. 21, 1871
	Scoggins, Samuel R., Baltimore, Md. Refrigerator (Disclaimer filed)	Aug. 16, 1871
122,065	Scollay, George W., New York, N. Y. Medical compound of vegetable alkaloids	Dec. 19, 1871
5,349	Scorer, Robert, and Robert Ham, assignors to J. L. Mott; Troy, N. Y. Heating-stove	(Design) Nov. 7, 1871
5,394	Same. Stove	(Design) Nov. 28, 1871
5,395	Same. Parlor-stove	(Design) Nov. 28, 1871
115,647	Scott, Augustus R., Albany, N. Y. Locking-device for dog-collars	June 6, 1871
	Scott, Benjamin. (<i>See McMahon, John, assignor.</i>) (Design)	
113,209	Scott, Charles Roe, New York, N. Y. Wardrobe or hat hook	Mar. 28, 1871
112,289	Scott, Francis B., Lancaster, N. Y. Harvester-rake	Feb. 28, 1871
116,999	Scott, George, assignor to Hubert R. Ives and Roger N. Allen, Montreal, Canada. Weighing-scales	July 11, 1871
120,672	Scott, Henry Y. D., England. Preparation of mortar, cement, &c.	Nov. 7, 1871
121,066	Scott, James H., Kickapoo, Ill. Tonic and diatonic mutation-scales. (Ante-dated Nov. 2, 1871)	Nov. 21, 1871
112,290	Scott, Jerome D. Stove-pipe shelf	Feb. 28, 1871
112,855	Scott, John, Pontiac, Mich. Hoisting-machine	Mar. 21, 1871
120,171	Scott, John, Philadelphia, Pa. Burial-casket	Oct. 24, 1871
	Scott, John D., and William C. Hays. (<i>See Hays & Scott.</i>)	
114,976	Scott, John W., Broad Top City, Pa. Sleigh-brake	May 16, 1871
114,867	Scott, Robert P., Cadiz, Ohio. Fruit-parer	May 16, 1871
121,132	Scott, Thomas R., assignor through mesne assignments to Mary A. Scott and Adaline M. Ingersoll, New York, N. Y. Life-preserver	Nov. 21, 1871
	Scott, William A., et al. (<i>See Williams, George L., assignor.</i>)	
	Same. (<i>See Woodhouse, John V., assignor.</i>) (Two cases.)	
111,980	Scott, William J., Albany, N. Y. Revolving show-case	Feb. 21, 1871
114,207	Scougale, George H., Carson City, Nev. Railway-switch chair	April 25, 1871
114,356	Scovill, Edward G., St. John, N. B. Machine for charging iron-furnaces	May 2, 1871
	Scovill Manufacturing Company. (<i>See Lewis, William H., assignor.</i>)	
117,337	Scoville, Charles F., Chicago, Ill. Truck for moving mounted car-axles	July 25, 1871
115,110	Scow, Anton F., Chicago, Ill. Machine for cutting splints	May 23, 1871
113,455	Scrannage, Matthew and Edward, jr., assignors to Scrannage, Bate & Co., Boston, Mass. Safety-valve	April 4, 1871
115,111	Scripter, Timothy P., Des Moines, Iowa. Furnace	May 23, 1871
122,066	Scriven, William H., and William K. Taylor, Flatbush, N. Y. Swing for children	Dec. 19, 1871
	Scruggs, John E., and Frank M. Neff. (<i>See Neff & Scruggs.</i>)	
111,688	Scrymgeour, David, Foxborough, Mass. Electrotpe die or mold for molding plastic materials	Feb. 7, 1871
121,668	Same. Hat or bonnet	Dec. 5, 1871
	Same. (<i>See Curtis, Francis, assignor.</i>)	
113,456	Seabold, Anthony, Florence, Ohio. Corn-salve	April 4, 1871
	Seabury, Samuel, et al. (<i>See Ellsworth, Wilcox & Seabury.</i>)	
121,817	Seabury, Thomas S., Saint James, N. Y. Sulky	Dec. 12, 1871
116,358	Seaman, John H., Brooklyn, N. Y. Gasalier	June 27, 1871
116,359	Same. same	June 27, 1871
116,360	Same. same	June 27, 1871
113,579	Seaman, Joseph, Chicago, Ill. Feed-cutter	April 11, 1871
	Seaman, Robert, et al. (<i>See Burnett, Durrant, assignor.</i>)	
	Same. (<i>See Chappel, John H., assignor.</i>)	
	Seaman, Robert, and H. W. Shepard. (<i>See Burnett, Durrant, assignor.</i>)	
121,669	Searing, Theodore, South Norwalk, Conn. Fruit and vegetable parer	Dec. 5, 1871
111,389	Searle, John Q. C., New Albany, Kans. Base-burning stove	Jan. 31, 1871
	Sears, Barnas C. (<i>See Lacy, Erasmus D., assignor.</i>)	
118,649	Sears, James E., Waco, Tex. Apparatus for the manufacture of ice	Aug. 29, 1871
115,532	Sears, James M., Vandalia, Ill. Ax-handle	May 30, 1871
122,067	Seat, James L., Nashville, Tenn. Flood-fence	Dec. 19, 1871
121,670	Sebring, Thompson C., assignor to Byron G. Stout, Walter D. and Algernon S. King, Milford, Mich. Wheel-cultivator	Dec. 5, 1871
	Secomb Manufacturing Company. (<i>See Holt & Secombe, assignors.</i>)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Secombe, William W., and Horace Holt. (<i>See Holt & Secombe.</i>)	
116,761	Secor, Jerome B., Chicago, Ill. Binding-guide for sewing-machines.....	July 4, 1871
5,155	Same.....Sewing-machine leg.....(Design).....	Aug. 1, 1871
5,231	Same.....Treadle for sewing-machines.....(Design).....	Aug. 22, 1871
5,407	Same.....Sewing-machine frame.....(Design).....	Dec. 5, 1871
121,965	Same.....Sewing-machine.....	Dec. 19, 1871
121,966	Same.....Check-lever for sewing-machines.....	Dec. 19, 1871
121,967	Same.....Needle-holding device for sewing-machines.....	Dec. 19, 1871
117,570	See, Horace, Pottsville, Pa. Valve-gear of pumping-engines.....	Aug. 1, 1871
114,478	See, Julius M., Griffin, Ga. Churn-dasher.....	May 2, 1871
116,635	Seeberger, Joseph, assignor to self and Alexander Shiland, West Troy, N. Y. Knife-cleaner.....	July 4, 1871
114,479	Seebold, Jacob, Kantz, Pa. Bridge.....	May 2, 1871
121,902	Seeger, Jacob, and John Boyd, Baltimore, Md. Preserving and using hops in brewing.....	Dec. 12, 1871
114,868	Seeley, Edmund A., Scotch Plains, N. J. Manufacture of paper-board.....	May 16, 1871
114,977	Seeley, Hurlbert H., Hudson, Mich. Fanning-mill.....	May 16, 1871
118,396	Seely, Charles A., New York, N. Y. Extract of hops.....	Aug. 22, 1871
119,795	Same.....Ice-machine.....	Oct. 10, 1871
	Seely, Charles A., and Charles J. Eames. (<i>See Eames & Seely.</i>).....(Reissue.)	
115,777	Seely, David B., Sterling, Ill. Pruning-shears.....	June 6, 1871
	Segar, Charles T., and Frederick P. Baldwin. (<i>See Baldwin & Segar.</i>)	
115,112	Seger, Garret, assignor to self and O. F. Kniseley, Humberstone, Canada. Cider-mill.....	May 23, 1871
114,208	Segondy, Jean, and Michel Ravold, Saint Louis, Mo. Cooking-stove.....	April 25, 1871
114,719	Sehner, Nathaniel, Hagerstown, Md. Spring-hinge.....	May 9, 1871
117,691	Same.....same.....	Aug. 1, 1871
	Sehner, Nathaniel, and John F. Keller. (<i>See Keller & Sehner.</i>)	
117,692	Seiberling, John F., Akron, Ohio. Harvester.....	Aug. 1, 1871
	Seiberling, J. F., Reaper Company. (<i>See Keller, John H., assignor.</i>).....(Reissue.)	
111,881	Seibert, Nicholas, San Francisco, Cal. Lubricator.....	Feb. 14, 1871
4,770	Seidensticker, Frederick R., assignor to Bradley & Hubbard, West Meriden, Conn. Lamp-bracket.....(Design).....	April 4, 1871
5,005	Same.....Chandelier.....	June 13, 1871
5,343	Same.....same.....	Oct. 31, 1871
5,344	Same.....same.....	Oct. 31, 1871
119,415	Seiffert, Rudolph, Chicago, Ill. Horseshoe.....	Sept. 26, 1871
113,803	Seimel, Conrad, assignor to self and Hubert Richardson, Green Point, N. Y. Soldering-furnace.....	April 18, 1871
111,008	Seipel, Jacob D., and Cyrus B. Alsover, Easton, Pa. Case for odometers.....	Jan. 17, 1871
116,226	Seipt, A. H., Philadelphia, Pa. Spittoon-tongs.....	June 20, 1871
118,283	Seitzinger, Charles P., Scranton, Pa. Apparatus for crimping wire.....	Aug. 22, 1871
	Selby, William G., and John Bowman. (<i>See Bowman & Selby.</i>)	
116,636	Selden, George, Erie, Pa. Machine for turning the flanges on the heads of oil-tanks.....	July 4, 1871
117,936	Same.....Saw-mill carriage.....	Aug. 8, 1871
113,457	Selden, Samuel, and Matthew Griswold, jr., Erie, Pa. Mop-head.....	April 4, 1871
119,185	Selden, William C., Brooklyn, N. Y. Feed-water apparatus for steam-boilers.....	Sept. 19, 1871
4,863	Seldis, Raphael M., New York, N. Y. Muff and collar box.....(Design).....	May 2, 1871
4,087	Same.....same.....	July 4, 1871
120,904	Seldis, Raphael M., assignor to Jason Crane, New York, N. Y. Moth-proof box.....	Nov. 14, 1871
122,068	Seldis, Raphael Morris, assignor to John H. Trusty, New York, N. Y. Sash-holder.....	Dec. 19, 1871
	Selkirk, Alexander. (<i>See Schoonmaker, John H., assignor.</i>)	
112,742	Sell, Hugo, New York, N. Y. Beer-cooler for beer on draught.....	Mar. 14, 1871
	Sell, Manrow, and Abraham Rudisill. (<i>See Rudisill & Sell.</i>)	
114,978	Sellers, John Carrington, England. Metal-founders' blacking.....	May 16, 1871
118,820	Selle, Ferdinand, Detroit, Mich. Whip-socket.....	Sept. 12, 1871
112,385	Sellers, Coleman, assignor to William Sellers & Co., Philadelphia, Pa. Slide-valve for steam-riveting machines.....	Mar. 7, 1871
111,575	Sellers, William, Philadelphia, Pa. Riveting-machine.....	Feb. 7, 1871
112,856	Same.....Hoisting-machine.....	Mar. 21, 1871
	Seller, William, Philadelphia, Pa. Machine for threading bolts.....(Extension).....	Nov. 15, 1871
118,977	Sellers, William, New York, N. Y. Single-wheel toy-propeller.....	Sept. 12, 1871
114,869	Sellman, Henry G., North Newburgh, Mich. School desk and seat.....	May 16, 1871
120,781	Sells, Hugh, Vienna, Canada. Straw-cutter.....	Nov. 7, 1871
	Selser, William, C. N., and J. A., et al. (<i>See Wicks, Loren J., assignor.</i>)	
112,080	Selsor, George, Philadelphia, Pa. Grinding-mill.....	Feb. 21, 1871
	Seltzer, Jonathan R. (<i>See Lash, John S., assignor.</i>)	
	Same.....(<i>See Groom, Patrick W., assignor.</i>).....(Design).....	
112,386	Semple, Samuel, sr., John, Samuel, jr., and Robert A., Mount Holly, N. J. Machine for polishing thread.....	Mar. 7, 1871
4,536	Senderling, Martin L., Jersey City, N. J. Apparatus and process for mixing sugar.....	Aug. 29, 1871
	Seneare, Lewis. (<i>See Langdon, George W., assignor.</i>)	
112,968	Sener, John Frederick, Lancaster, Pa. End-gate for wagons.....	Mar. 21, 1871
116,872	Senn, Francois, Forestville, N. Y. Boot and shoe.....	July 11, 1871
5,232	Senne, August, Newark, N. J. Lady's satchel.....(Design).....	Aug. 22, 1871
	Senseman, Hiram, and Tandy S. Collins. (<i>See Collins & Senseman.</i>)	
	Sensitized Paper Company. (<i>See Coffin, John George, assignor.</i>)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,262	Sergeant, Henry C., assignor to José F. de Navarro, Newark, N. J. Liquid-meter	Jan. 24, 1871
114,480	Same.....Liquid-meter	May 2, 1871
	Sergeant, Henry C., and José F. de Navarro. (<i>See De Navarro & Sergeant.</i>)	
113,936	Servant, William, assignor to self and Josiah A. Whitman, Providence, R. I. Percussion-match	April 18, 1871
117,820	Servoss, Charles W., Chicago, Ill. Heating-drum	Aug. 8, 1871
122,069	Sessions, Milton, and David Muzzey, Saint Albans, Vt. Car-axle box	Dec. 19, 1871
116,873	Setchel, John H., assignor to self and John Durand, Cincinnati, Ohio. Blast-protector for exhaust-nozzles	July 11, 1871
122,135	Setchell, George C., and Cebra L. Taylor, assignors to selves and Chester W. Converse, Norwich, Conn. Fastener for bags, &c	Dec. 26, 1871
116,361	Seuff, Charles H., New York, N. Y. Apparatus for cooling bone-black	June 27, 1871
117,116	Sevey, Eiram B., Vienna, Me. Machine for cutting, punching, and upsetting tires	July 18, 1871
120,111	Sevy, Edmund F., Saint John's, Mich. Milk-safe	Oct. 17, 1871
118,397	Sewall, Joseph A., Normal, Ill. Compound for coating iron	Aug. 22, 1871
112,743	Seward, Moses, New Haven, Conn. Carriage-clip	Mar. 14, 1871
114,051	Same.....Die for forging carriage-clips	April 25, 1871
111,981	Sewell, George, Brooklyn, N. Y. Hose-ring	Feb. 21, 1871
114,052	Same.....Method of reducing pressure in steam-boilers. (Antedated April 22, 1871)	April 25, 1871
114,979	Same.....Self-adjusting car-wheel gear	May 16, 1871
112,081	Sexton, Samuel B., Baltimore, Md. Hot-air furnace	Feb. 21, 1871
111,782	Sexton, Sarah A., New York, N. Y. Sewing-machine seat	Feb. 14, 1871
117,211	Seyl, Peter, Peter Fischer, and Philipp Bremer, Chicago, Ill. Anti-friction axle-box	July 18, 1871
115,364	Seymour, Albert P., Hecla Works, N. Y. Shutter-fastener	May 30, 1871
	Seymour, Daniel A., <i>et al.</i> (<i>See Derby, John K., assignor.</i>)	
115,243	Seymour, Daniel L., New York, N. Y. Preparing and treating iron-ores in the manufacture of steel. (Antedated May 11, 1871)	May 23, 1871
	Seymour, James, administrator. (<i>See Colley, William H.</i>) (Reissue.)	
112,502	Seymour, James M., Newark, N. J. Dovetailing-machines	Mar. 7, 1871
120,673	Seymour, Jonathan H., Hagerstown, Md. Spittoon	Nov. 7, 1871
4,935	Seymour, Joseph L., Washington, D. C. Bundle of kindling-wood... (Design)	May 23, 1871
	Seymour, Pierpont, East Bloomfield, N. Y. Machine for spreading lime and other fertilizers (Extension)	Nov. 15, 1871
	Seymour, R. M., and James B. Sharp. (<i>See Sharp & Seymour</i>) (Reissue.)	
111,483	Seymour, William H., Brockport, N. Y. Harvester reel and rake	Jan. 31, 1871
121,010	Seyter, Hermann, Wurtemberg. Feed-regulator for liquids	Nov. 14, 1871
115,986	Shaaber, Daniel, Reading, Pa. Draw-head and bumper for railroad-cars	June 13, 1871
	Shackell, Samuel and Henry, <i>et al.</i> (<i>See Tisdale, Charles D., assignor.</i>) (Reissue.)	
	Shackell, Samuel. (<i>See Tisdale, Charles D., assignor.</i>)	
115,533	Shackleton, Joseph, Rahway, N. J. Railroad-car heater	May 30, 1871
113,353	Shackleton, William S., Cleveland, Ohio. Coal-delivering sack	April 4, 1871
117,472	Shadbolt, Charles T., Attica, N. Y. Washing-machine. (Antedated July 18, 1871)	July 25, 1871
	Shaeffer, Amos, and David Reed. (<i>See Reed & Shaeffer.</i>)	
113,458	Shaeffer, Lewis W., Elizabethtown, Ky. Wagon-bolster stake	April 4, 1871
4,368	Shafer, John B., assignor to the National Cattle-Car Company, Salem, Ohio. Railway cattle-car (Reissue)	May 2, 1871
113,580	Shaffer, Abraham, Vandalia, Mich. Churn	April 11, 1871
114,053	Shaffer, Edward P., Rochester, N. Y. Carpet-stretcher	April 25, 1871
4,460	Shaffer, Henry E., Rochester, N. Y. Fruit-jar (Reissue)	July 4, 1871
	Shaffer, Joseph, and George B. Hall. (<i>See Hall & Shaffer.</i>)	
118,751	Shaler, Ira W., Brooklyn, N. Y. Torch	Sept. 5, 1871
119,657	Same.....Can for hydrocarbon liquids	Oct. 3, 1871
119,887	Same.....Lamp	Oct. 10, 1871
114,611	Shalters, Moses R., Alliance, Ohio. Plow	May 9, 1871
118,284	Shalters, Moses R., and Samuel Ray, Alliance, Ohio. Mowing-machine. (Antedated Aug. 11, 1871)	Aug. 22, 1871
	Shambaugh, Isaac B., and Solomon Rousculp. (<i>See Rousculp & Shambaugh.</i>)	
114,980	Shamp, David, Perry, N. Y. Flour-bolting reel	May 16, 1871
121,426	Shand, James, England. Steam-boiler	Nov. 28, 1871
112,082	Shaneman, Joseph S., and Joseph S. Hoon, Beaver Falls, Pa. Fruit-can	Feb. 21, 1871
118,159	Shank, Samuel B., Millersville, Pa. Cultivator	Aug. 15, 1871
113,581	Shankland, David, and Emerson B. Hopkinson, Nevada City, Cal. Fly-brush	April 11, 1871
116,875	Shannon, Albert F., Quincy, Ill. Medical compound	July 11, 1871
120,674	Shannon, James S., Lena, Ill. Uterine-supporter	Nov. 7, 1871
121,671	Shannon, John A., Perrysburgh, Ohio. Paper-file	Dec. 5, 1871
110,686	Share, Philip T., Baltimore, Md. Shutter-fastening	Jan. 3, 1871
	Shares, Daniel W., Hamden, Conn. Harrow (Extension)	Jan. 26, 1871
	Sharp, Dennis P., and Gilbert Jessup. (<i>See Jessup & Sharp.</i>)	
4,715	Sharp, George, Philadelphia, Pa. Spoon or fork handle (Design)	Mar. 14, 1871
4,348	Sharp, James B., and R. M. Seymour, deceased, by William Seymour, administrator, New York, N. Y. Suspender (Reissue)	April 18, 1871
	Sharp, Joel, <i>et al.</i> (<i>See Rank, King & Sharp.</i>)	
	Same.....same (Reissue)	
111,982	Sharp, Joel, and Joseph W. Thompson, Salem, Ohio. Steam-engine	Feb. 21, 1871
	Sharp, J. W. (<i>See Kenyon, Charles P., assignor.</i>)	
	Sharp, Thomas. (<i>See Griffing, Charles S. S., assignor.</i>)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,804	Sharp, William A., Tama City, Iowa. Dumping-car	April 18, 1871
121,011	Sharp, William A., and George Hollenbeck, Tama City, Iowa. Fire-escape. (Antedated Oct. 28, 1871)	Nov. 14, 1871
	Sharpless, W. C. (<i>See</i> Watts, David H., assignor.)	
118,752	Sharps, Christian, Philadelphia, Pa. Revolving fire-arm	Sept. 5, 1871
119,284	Shattuck, Alvin, Buffalo, N. Y. Tuck-marker for sewing-machines	Sept. 26, 1871
	Shattuck, Horace B. (<i>See</i> Johnson, Moses A., assignor.)	
116,762	Shaver, Isaac H., Cedar Rapids, Iowa. Oven	July 4, 1871
117,821	Shaver, Jacob, Lawrence, Ill. Churn	Aug. 8, 1871
113,210	Shaw, Ai B., Medford, Mass. Treadle	Mar. 28, 1871
120,461	Same.....same. (Antedated Oct. 18, 1871)	Oct. 31, 1871
	Same.....(<i>See</i> Glover, Warren, assignor)(Reissue.)	
114,357	Shaw, Calvin, Milledgeville, Pa. Sled-knee	May 2, 1871
120,542	Shaw, Duncan, Cincinnati, Ohio. Saw-set	Oct. 31, 1871
112,503	Shaw, Eton, Portland, Me. Wooden pavement	Mar. 7, 1871
113,211	Shaw, Elijah, Milwaukee, Wis. Punch and eyeletting-machine	Mar. 23, 1871
111,983	Shaw, George F. and Henry F., West Roxbury, Mass. Pump	Feb. 21, 1871
	Shaw, George W. (<i>See</i> Wardwell, Simon W., jr., assignor.)	
112,969	Shaw, Henry, Nevada City, Cal. Hydraulic nozzle	Mar. 21, 1871
121,968	Shaw, Henry F., West Roxbury, Mass. Governor. (Antedated Dec. 2, 1871)	Dec. 19, 1871
112,083	Shaw, John, Whitby, Canada. Kitchen-table	Feb. 21, 1871
115,113	Shaw, John H., Inlet, Ill. Clevis	May 23, 1871
115,774	Shaw, Lorenzo Dow Butters, Boston, Mass. Water-wheel	June 6, 1871
121,427	Same.....Steam or water engine	Nov. 28, 1871
121,969	Shaw, Samuel J., Marlborough, Mass. Mode of cutting boot and shoe soles	Dec. 19, 1871
120,334	Shaw, Sylvanus H., Lynn, Mass. Sash-holder	Oct. 24, 1871
	Shaw, S. W., <i>et al.</i> (<i>See</i> Heath, Elander, assignor.)	
115,365	Shaw, Thomas, Philadelphia, Pa. Hydraulic disk	May 30, 1871
121,672	Shaw, Thomas F., and John Bringman, Tiffin, Ohio. Washing-machine	Dec. 5, 1871
112,970	Shaw, Thomas L., Omaha, Nebr. Saw set and filer	Mar. 21, 1871
111,009	Shaw, Walter L., Etna, Pa. Fruit-picker	Jan. 17, 1871
120,905	Shaw, William, Albany, N. Y. Portable heating-apparatus	Nov. 14, 1871
116,763	Shaw, William Crowther, Philadelphia, Pa. Apparatus and process for separating, concentrating, and amalgamating ores	July 4, 1871
110,794	Shaw, William E., Portland, Me. Street-pavement	Jan. 3, 1871
117,212	Same.....Wood-pavement	July 18, 1871
	Same.....(<i>See</i> Brown, Samuel P., assignor.)	
120,906	Shaw, Winfield S., and Marcus B. Gould, Buffalo, N. Y. Feed-box	Nov. 14, 1871
	Shaw, Winfield S. (<i>See</i> Gould, Marcus B., assignor.)	
118,285	Shawen, Warren M., Bellaire, Ohio. Safety-frog for railways. (Antedated Aug. 17, 1871)	Ang. 22, 1871
112,291	Shay, James, Cincinnati, Ohio. Vapor-burner	Feb. 28, 1871
	Sheafe, U. T. (<i>See</i> Rowe, Lewis S., assignor.)	
114,870	Shear, Abram, Plymouth, Mich. Mechanical movement	May 16, 1871
111,263	Shearer, Frank B., Columbus, Ohio. Burial-case	Jan. 24, 1871
112,387	Shearer, Frederick S., Washington, Ill. Paint-brush	Mar. 7, 1871
117,000	Shears, Albert L., assignor to self, Timothy Hutchings, and John L. Sandell, Saint Louis, Mich. Thimble-skein for wagons	July 11, 1871
121,673	Shears, Albert L., Flint, Mich. Sled-knee	Dec. 5, 1871
119,477	Shears, Henry, Merton, Wis. Water-wheel	Oct. 3, 1871
113,212	Sheble, Samuel, Philadelphia, Pa. Fork, hoe, &c.	Mar. 23, 1871
	Shedd, Thomas, and Royal E. Deane. (<i>See</i> Deane & Shedd.)	
	Shedd, William B., and George E. Hopkins. (<i>See</i> Hopkins & Shedd.) (Reissue.)	
113,213	Shedlock, Alfred, New York, N. Y. Machine for repairing hose, &c. (Antedated March 22, 1871)	Mar. 23, 1871
122,136	Shedlock, Alfred, assignor of one-half interest to Claudius F. Beatty, New York, N. Y. Machine for dicing leather	Dec. 26, 1871
121,012	Sheers, David J., Belmont, Wis. Corn-planter	Nov. 14, 1871
116,876	Sheffield, George V., assignor to self and Lyman A. Cook, Boston, Mass. Submarine excavator	July 11, 1871
	Sheldon, James, <i>et al.</i> (<i>See</i> Frowen, Hemmings & Sheldon.)	
111,576	Sheldon, James T., Chicopee, Mass. Feather-renovator	Feb. 7, 1871
115,114	Sheldon, Julius, Newark, N. J. Machine for stretching the brims of hats	May 23, 1871
117,822	Sheldon, Nathaniel P., San Francisco, Cal. Paddle-wheel	Aug. 8, 1871
110,936	Sheldon, Nathaniel P., assignor to self and William H. Hall, San Francisco, Cal. Pump	Jan. 10, 1871
118,821	Sheldon, Richard B., Canastota, N. Y. Seed-drill	Sept. 12, 1871
112,971	Sheldon, Samuel D., Fitchburgh, Mass. Turning-lathe	Mar. 21, 1871
120,675	Shelley, George A., Madison, Conn. Spirit-level	Nov. 7, 1871
111,689	Shelley, Jacob, Mahanoy Township, Pa. Rock-drill	Feb. 7, 1871
115,115	Shelley, Jacob, Mahanoy, Pa., and Milan C. Bullock, Pottsville, Pa. Sinking shafts and excavating tunnels and cuttings	May 23, 1871
116,637	Shelmidine, Charles, Summit, N. Y. Shingle-machine	July 4, 1871
118,160	Sheltman, Edward F., Christiansburgh, Va. Speed-recording apparatus	Aug. 15, 1871
117,473	Shelton, Gillum, Normal, Ill. Device for pulverizing the soil	July 25, 1871
112,857	Shenfield, Abraham, New York, N. Y. Buckle for suspenders	Mar. 21, 1871
121,428	Shepard, Edwin R., Binghamton, N. Y. Fluting-tongs. (Antedated Nov. 23, 1871)	Nov. 23, 1871
112,641	Shepard, Freedom G., Battle Creek, Mich. Shaft-coupling	Mar. 14, 1871
114,481	Shepard, Henry W., Mannsville, N. Y. Bottom for sheet-metal ware	May 2, 1871
	Shepard, H. W., <i>et al.</i> (<i>See</i> Burnett, Durrant, assignor.)	
	Same.....(<i>See</i> Chappel, John H., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Shepard, H. W., and Robert Seaman. (<i>See</i> Burnett, D., assignor.)	
116,877	Shepard, Ira, Dowagiac, Mich. Sewing-machine	July 11, 1871
119,888	Shepard, Josiah, New Britain, Conn. Umbrella	Oct. 10, 1871
117,117	Shepard, William A., and Charles W. McClure. (<i>See</i> McClure & Shepard.)	
	Shepardson, Elijah O., Saint Louis, Mo. Extension-ladder. (Antedated July 7, 1871)	July 18, 1871
118,062	Shepherd, William, New York, N. Y. Drop-grate for furnaces	Aug. 15, 1871
114,612	Shepler, John, assignor of one-half interest to William H. Slack, Lambertville, N. J. Car-coupling	May 9, 1871
	Sheppard, Isaac A. (<i>See</i> Schuckers, Jacobs W., assignor.)	
118,286	Sheppard, John L., Charleston, S. C. Bale-tie	Aug. 22, 1871
	Sherburne, Joseph A., and Levi Abbott. (<i>See</i> Abbott & Sherburne.)	
	Sherburne, Norman H. (<i>See</i> Smith, Elizabeth P., assignor.)	
114,720	Sherman, Arthur, Poughkeepsie, N. Y. Machine for tenoring spokes	May 9, 1871
118,650	Sherman, David H., Waukegan, Ill. Motor for sewing-machines	Aug. 29, 1871
119,416	Sherman, George C., Chicago, Ill. Railway-car coupling	Sept. 26, 1871
120,599	Sherman, Jason H., Galesburgh, Ill. Bed-bottom	Nov. 7, 1871
113,214	Sherman, John, and William Marriott, Cleveland, Ohio. Stave-jointers	Mar. 28, 1871
5,292	Sherman, Joseph, Burlington, N. J. Fruit-box	Sept. 26, 1871
117,571	Sherman, Nehemiah, Cincinnati, Ohio. Blow-off pipe for steam-boilers	Aug. 1, 1871
113,698	Sherman, Samuel S., and Hiram B. Gunn, Eau Claire, Wis. Sawing-machine	April 11, 1871
117,001	Sherman, Seeley M., Fort Dodge, Iowa. Window-blind	July 11, 1871
111,090	Sherman, Wesley W., Saint Charles County, Mo. Fence	Jan. 17, 1871
113,459	Sherman, William T., Marengo, Ohio. Compound for cure of foot-rot in sheep	April 4, 1871
	Sherrick, Martin. (<i>See</i> Smith, Egbert, assignor.)	
121,674	Sherriff, Charles, Newark, N. J. Imitation hair-cloth	Dec. 5, 1871
112,972	Sherry, James, Watertown, N. Y. Shaft-coupling	Mar. 21, 1871
	Sherwin, Albert, <i>et al.</i> (<i>See</i> Clarkson, George, assignor.)	
111,577	Sherwood, Calvin W., Chicago, Ill. Portable book-holder	Feb. 7, 1871
	Sherwood, Daniel, <i>et al.</i> (<i>See</i> Goodhue, Charles W., assignor)	
	Same	(Design.)
	Same	(<i>See</i> Latham & Lugg, assignors.)
	Same	(<i>See</i> Latham, Cyrus H., assignor.)
	Same	(<i>See</i> Goodhue, Charles W., assignor.)
	Same	(<i>See</i> Latham, Cyrus H., assignor.)
	Same	(<i>See</i> Latham & Lugg, assignors)
	Same	(Two cases.) (Reissue.)
	Same	(<i>See</i> Dudley, George D., assignor)
5,312	Sherwood, Daniel, and George D. Dudley, assignors to Edward P. Woods, Daniel Sherwood, and Cyrus H. Latham, Lowell, Mass. Table-caster	Oct. 10, 1871
5,282	Sherwood, Henry M., Chicago, Ill. Frame for church, hall, and lawn seats. (Design)	Sept. 26, 1871
117,002	Sherwood, John P., Fort Edward, N. Y. Sewing-machine	July 11, 1871
113,938	Sherwood, William T., Ripon, Wis. Medical compound, or bitters	April 18, 1871
121,205	Shewell, Elizabeth Angeline, Boston, Mass. Medical compound for the cure of cutaneous diseases	Nov. 21, 1871
	Shickle, Harrison & Co. (<i>See</i> Schwagerl, Edward O., assignor)	
119,245	Shields, Francis M., Sacramento, Cal. Manufacture of dental plates	Sept. 26, 1871
118,287	Shields, George W., assignor to self, Michael L. Mitchell, and John A. Melcher, Louisville, Ky. Globe and check valve	Aug. 22, 1871
121,206	Shields, James H., Louisville, Ky. Coffin-receptacle	Nov. 21, 1871
119,537	Shiland, Alexander, Albany, N. Y. Machine for producing stereotype matrices. Same	Oct. 3, 1871
	Same	(<i>See</i> Seeberger, Joseph, assignor.)
	Shimanour, William, and Joseph L. Linville. (<i>See</i> Linville & Shimanour.)	
	Shiner, Andrew. (<i>See</i> Hamlin, Cornelius, assignor.)	
	Shinn, Riley A., <i>et al.</i> (<i>See</i> Maloney, James A., assignor.)	
111,264	Shipley, Nicholas H., Baltimore, Md. Apparatus and process for canning and preserving meat, fruit, vegetables, &c	Jan. 24, 1871
112,642	Same	Mar. 14, 1871
112,504	Shipman, George W., Ischua, N. Y. Guard for circular-saws	Mar. 7, 1871
	Shock, A. C. (<i>See</i> Stuckey, Henry, assignor.)	
114,054	Shockley, Richard C., Fayette, Wis. Wagon-brake	April 25, 1871
	Shoemaker, Abner C. P. (<i>See</i> Jenkins, Jesse, assignor.)	
112,265	Shoemaker, Henry and John, Putneyville, Pa. Rock-drill	Jan. 24, 1871
121,257	Shoemaker, Solomon B., Willoughby, Ohio. Feather-renovator	Nov. 23, 1871
	Shoenberger & Co. (<i>See</i> Justus, William R., assignor.)	
114,981	Shoenberger, Edwin F., Philadelphia, Pa. Faucet or supply cock	May 16, 1871
114,982	Shoenberger, Edwin F., assignor to George K. Shoenberger, Germantown, Pa. Hitching-post	May 16, 1871
118,491	Sholes, C. Latham, Milwaukee, Wis. Mechanical typographer	Aug. 29, 1871
118,978	Sholes, C. Latham, assignor to James Densmore, Milwaukee, Wis. Numbering-machine	Sept. 12, 1871
	Shoninger, B. (<i>See</i> Lomas, John R., assignor)	
	Same	(Four cases.)
	Same	(Design.)
114,055	Shontz, Absalom S., Quincy, Ill. Heating-stove	April 25, 1871
119,538	Shopbell, Elias, Ashland, Ohio. Boot-pattern	Oct. 3, 1871
	Shorb, John S., and John L. Pillsbury. (<i>See</i> Pillsbury & Short.)	
114,209	Shorey, John, and William D. Butler, Lowell, Mass. Slat for window-shades	April 25, 1871
112,388	Short, Samuel A., Frederick J., and John B., and Jasper Kile, Decatur, Ala. Bee-hive	Mar. 7, 1871
4,850	Short, William H., Brooklyn, N. Y. Sash-weight	April 25, 1871
116,227	Short, William Hamilton, Montreal, Canada. Fire-proof safe. (Antedated June 8, 1871)	June 20, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,822	Shortridge, William P., Easton, Mo. Bee-hive.....	Sept. 12, 1871
116,228	Shortt, Edward G., assignor to self, Levi Wood, Minor Guyot, George Gilbert, and A. Irving Sternberg, Carthage, N. Y. Method of fastening pulley and wheel hubs to shafts.....	June 20, 1871
117,823	Shortt, Edward G., assignor to self, Levi Wood, Minor Guyot, A. Irving Sternberg, and George Gilbert, Carthage, N. Y. Shaft-coupling.....	Aug. 8, 1871
115,366	Shouldler, Jacob, Scottsville, N. Y. Wagon-gearing.....	May 30, 1871
117,213	Showalter, Isaac, Chester County, Pa. Self-adjusting cart and brake. (Ante-dated July 15, 1871).....	July 18, 1871
	Shrawder, John S. and Jacob B. (See Kook & Shrawder.).....	
116,229	Shreiner, Martin, Carlisle, Pa. Grain-separator.....	June 20, 1871
115,534	Shriever, Charles D., assignor to self, Alfred B. Davis, and John H. Roeloss, Philadelphia, Pa. Shade roller and fixture.....	May 30, 1871
117,474	Shrote, John H., Baltimore, Md. Machine for sheeting dough.....	July 25, 1871
119,054	Shryock, Daniel, Hannibal, Mo. Chart-holder.....	Sept. 19, 1871
115,116	Shuler, Isaac C., Amsterdam, N. Y. Burial-case.....	May 23, 1871
	Shuler, L. S. (See Smith, James K. P., assignor.).....	
	Schults, George W., and James Lefever. (See Lefever & Schults.).....	
113,460	Shultz, Horatio N., Mechanicstown, Md. Fire-alarm.....	April 4, 1871
	Shultz, Walter F., et al. (See Foster & Saylor, assignors.).....	
	Shunk, Christian, Philadelphia, Pa. Refining iron..... (Disclaimer filed).....	Mar. 3, 1871
114,482	Shurtleff, Asabel M., Boston, Mass. Apparatus for atomizing liquids.....	May 2, 1871
	Shute, James L., et al. (See Jeffery, Robert, assignor.).....	
113,215	Shute, Samuel, jr., Richmond, Ind. Fastener for carriage-curtains, &c.....	Mar. 23, 1871
117,693	Sibert, Lorenzo, Staunton, Va. Flux for the manufacture of iron and steel.....	Aug. 1, 1871
112,744	Sibley, John J., New York, N. Y. Sewing-machine needle.....	Mar. 14, 1871
111,266	Sibley, Lyman W., Ames, Iowa. Gate.....	Jan. 24, 1871
	Sibley, Simon H. (See Ruze, Alfred, assignor)..... (Two cases.).....	
111,690	Sibley, Solomon, Boston, Mass. Shirt.....	Feb. 7, 1871
120,462	Same.....Shirt-bosom.....	Oct. 31, 1871
117,118	Sibley, Stephen, Chelsea, Mass. Ventilated horse-cover.....	July 18, 1871
	Sickels, Theophilus E., Omaha, Nebr. Steam-brake for railroad-cars. (Extension).....	Mar. 11, 1871
120,829	Siddons, John, Rochester, N. Y. Metallic roofing.....	Nov. 14, 1871
120,600	Side, Edgar, Brooklyn, N. Y. Neck-tie fastener.....	Nov. 7, 1871
112,745	Sidenberg, William, New York, N. Y. Sewing-machine.....	Mar. 14, 1871
115,117	Same.....same.....	May 23, 1871
	Sidney, Shepard, & Co. (See Tripp, Augustus F., assignor)..... (Reissue.).....	
113,582	Siebecke, John H., Ann Arbor, Mich. Wash-boiler.....	April 11, 1871
116,638	Siebel, John E., Chicago, Ill. Depilating hides and preserving wood.....	July 4, 1871
4,549	Same.....Depilating hides..... (Division A, reissue).....	Sept. 12, 1871
4,550	Same.....Preserving wood..... (Division B, reissue).....	Sept. 12, 1871
111,390	Siebert, Louis, and John W. Lilley, assignors to John R. Hool & Son, Columbus, Ohio. Heater for paper-ruling machines.....	Jan. 31, 1871
113,102	Siefert, William, assignor to self and Matthew T. Kane, New York, N. Y. Anti-friction balanced valve.....	Mar. 23, 1871
113,583	Siegfried, Alexander H., assignor to self and George B. Garman, South Bend, Ind. Refining iron and steel.....	April 11, 1871
4,507	Same.....Refining and tempering iron and steel..... (Reissue).....	Aug. 8, 1871
113,584	Siemens, Charles William, England. Process and apparatus for the production of cast-steel from ores.....	April 11, 1871
111,691	Siemens, Charles William, Edward Alfred Cowper, and Charles Cochrane, said Siemens and Cochrane assignors to said Cowper, England. Hot-blast stove for heating air, steam, &c.....	Feb. 7, 1871
115,987	Siemers, Frenzes G., Winona, Minn. Meat-cutter.....	June 13, 1871
118,979	Silber, Albert Marcins, and Frederick White, England. Apparatus for lighting and heating purposes.....	Sept. 12, 1871
5,361	Silcox, Josiah, assignor to James Humphries & Sons, England. Carpet-pattern..... (Design).....	Nov. 7, 1871
5,362	Same.....Carpet-pattern..... (Design).....	Nov. 7, 1871
119,417	Silsby, Eugene W., Ottumwa, Iowa. Fifth-wheel and coupling for vehicles.....	Sept. 26, 1871
	Silver, A. R. (See Deming, John, assignor)..... (Reissue.).....	
117,003	Silver, Albert R., assignor to self and John Deming, Salem, Ohio. Meat and vegetable cutter.....	July 11, 1871
113,585	Silver, Thomas, New York, N. Y. Hoisting-apparatus.....	April 11, 1871
	Silversmith, John F., and James C. Rose. (See Rose & Silversmith.).....	
112,389	Sim, Thomas, Baltimore, Md. Apparatus for removing oil from vegetable and other matters.....	Mar. 7, 1871
112,390	Same.....Retort for producing bisulphide of carbon.....	Mar. 7, 1871
121,903	Same.....Apparatus for separating fatty matter from vegetable substances.....	Dec. 12, 1871
	Simendinger, Theodore, and Hermann A. Schottky. (See Schottky & Simendinger.).....	
115,367	Simmons, Alonzo J., Indianapolis, Ind. Device for removing lime, dirt, and sediment from boiling liquids.....	May 30, 1871
120,003	Same.....Packing for steam-engines, gas-pipes, water-pipes, &c.....	Oct. 17, 1871
117,338	Simmons, Cicero A., Waldo, Fla. Medical compound for liver and other diseases.....	July 25, 1871
117,339	Same.....Lifting-machine.....	July 25, 1871
121,904	Same.....Medical compound for treating constipation, &c.....	Dec. 12, 1871
115,368	Simmons, Daniel W., Lynn, Mass. Carpenters' gauge.....	May 30, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,056	Simmons, Franklin, New Orleans, La. Cotton-press.....	April 25, 1871
	Simmons, Isaac. (See Smith, Francis H., assignor)..... (Reissue.)	
120,335	Simon, Edward, & Brothers. (See Decker, Frederick E., assignor.)	
	Simon, Simon B., New York, N. Y. Replaceable pivot for watches	Oct. 24, 1871
	Simonds, Edwin, and George W. Huntoon. (See Huntoon & Simonds.)	
115,775	Simonds, George F., Fitchburgh, Mass. Machine for bending and hardening horse-rake teeth.....	June 6, 1871
115,118	Simonds, Nathan J., Woburn, Mass. Cutting-press	May 23, 1871
115,648	Same.....Shoe.....	June 6, 1871
	Simonds, N. J. (See Whitney, Joel, assignor)..... (Reissue.)	
113,103	Simonds, Samuel M., Lynn, Mass. Baby-tender	Mar. 28, 1871
114,358	Simonds, Warren A., Boston, Mass. Gas-machine.....	May 2, 1871
4,508	Simonin, Charles F. A., Philadelphia, Pa., and Edward W. Coffin, Glendale, N. J., assignors through mesne assignments to William Adamson. Process of extracting fatty substances..... (Reissue.)	Aug. 8, 1871
119,186	Simonin, Charles F. A., assignor to William Adamson, Philadelphia, Pa. Treating tarred rope, cordage and the like for the manufacture of paper stock, &c.....	Sept. 19, 1871
119,187	Same.....Process for treating textile fabrics with hydrocarbons	Sept. 19, 1871
119,188	Same.....Process and apparatus for extracting fatty substances.....	Sept. 19, 1871
	Simonin, Charles F. A., and William Adamson. (See Adamson & Simonin.) (Two cases.)	
	Simons & Miller. (See Miller, Watson J., assignor.)	
113,354	Simons, Norris W., Williamsfield, Ohio. Hold-back for vehicles.....	April 4, 1871
119,189	Simonsen, John Q., Graniteville, N. Y. Filtering-cisterns	Sept. 19, 1871
120,830	Simpers, Charles F., Philadelphia, Pa. Cork-puller. (Antedated Nov. 10, 1871) ..	Nov. 14, 1871
117,824	Simpson, Charles G. C., Montreal, Canada. Apparatus for disintegrating substances.....	Aug. 8, 1871
121,818	Simpson, Francis M., Pittsville, Mo. Riding-saddle.....	Dec. 12, 1871
	Simpson, Hall, Miller & Co. (See Miller, Friend, assignor.)	
119,658	Simpson, John, Cleveland, Ohio. Vise	Oct. 3, 1871
4,637	Same.....same..... (Reissue.)	Nov. 14, 1871
114,483	Simpson, Matthew P., Rosemond, Ill. Cultivator	May 2, 1871
112,391	Simpson, Michael H., Boston, Mass. Utilizing the silky down of the wild cotton.....	Mar. 7, 1871
113,355	Simpson, Thomas D., Mount Vernon, Ohio. Feed-water heater	April 4, 1871
122,197	Simpson, Thomas D., and William S. Lamkin, Marshall, Tex. Cotton-press....	Dec. 26, 1871
121,675	Sims, Lewis C., Martinsburgh, Ohio. Coupling for vehicles.....	Dec. 5, 1871
116,764	Sims, Zachariah B., Bonham, Tex. Cotton-cleaner.....	July 4, 1871
119,418	Same.....Cotton-hoe.....	Sept. 26, 1871
110,873	Sinclair, George, Scotland. Apparatus for boiling and treating paper-stock ..	Jan. 10, 1871
111,578	Sinclair, Hector, New York, N. Y. Portable fence	Feb. 7, 1871
113,586	Sinclair, Heman B., Paw Paw, Mich. Current water-wheel	April 11, 1871
115,776	Sinclair, James A., assignor to self and Warren Hollister, Woodsfield, Ohio. Pump.....	June 6, 1871
118,753	Sinclair, James P., Mottville, N. Y. Mill-pick holder.....	Sept. 5, 1871
119,190	Sinclair, Thomas R., New York, N. Y. Boiler-fire extinguisher	Sept. 19, 1871
120,907	Same.....Blacking-box.....	Nov. 14, 1871
120,908	Same.....Apparatus for filtering liquids.....	Nov. 14, 1871
112,292	Sine, Alpheus C., assignor to Lorenzo D. Sine, Cincinnati, Ohio. Numbering and paging machine	Feb. 28, 1871
113,461	Singer, Isaac A., New York, N. Y. Bird-cage mat	April 4, 1871
111,579	Singer, Jasper H., New York, N. Y. Paper for use in the bottom of bird-cages.	Feb. 7, 1871
111,391	Singer, Joseph, Mendota, Ill. Cultivator-plow. (Antedated Jan. 14, 1871) ..	Jan. 31, 1871
110,795	Singleton, Thomas, England. Warping-machine.....	Jan. 3, 1871
120,463	Sink, Thomas P., Fairton, N. J. Oyster-dredge.....	Oct. 31, 1871
114,057	Sisson, Arnold C., Factoryville, Pa. Wire-fence	April 25, 1871
110,937	Sisson, Luther S., West Edmeston, N. Y. Bee-hive	Jan. 10, 1871
	Sisson, Samuel A., and E. D. Buckman, executors. (See Allen, S. S.) (Extension.)	
	Same.....(See Allen, S. S.)..... (Reissue.)	
114,359	Sisson, William, Fulton, N. Y. Machine for cutting staves	May 2, 1871
113,939	Sisum, William H. H., Newark, N. J. Belt-shifter	April 18, 1871
114,058	Sitton, James Y., Due West, S. C. Carriage-wheel.....	April 25, 1871
121,133	Sivley, John J., Clarksville, Tex. Hay and cotton press.....	Nov. 28, 1871
120,782	Sizer, Emerson, Westfield, Mass. Whip-braiding machine	Nov. 7, 1871
112,186	Skeen, Jacob, Mound City, Ill. Lumber-wagon	Feb. 28, 1871
115,244	Same.....Dumping-wagon.....	May 23, 1871
115,245	Same.....Fifth-wheel.....	May 23, 1871
115,246	Same.....Fifth-wheel and attachment.....	May 23, 1871
117,004	Same.....Wagon.....	July 11, 1871
	Skelton, Jacob D. (See Victor, Edward, assignor.)	
122,070	Skidmore, William H., Secor, Me. Car-coupling	Dec. 19, 1871
116,104	Skifflington, William P., New York, N. Y. Boiler	June 20, 1871
113,356	Skillman, George R., assignor to self and James Beatty, Baltimore, Md. Cracker-machine.....	April 4, 1871
120,676	Skinner, David F., and Joseph Arnold, Albany, N. Y. Elevator.....	Nov. 7, 1871
120,783	Skinner, Henry A., assignor to self, Jonathan Luther, and Moses W. Wheeler, Worcester, Mass. Caster for sewing-machines.....	Nov. 7, 1871
112,187	Skinner, John, Hadley, Mich. Gearing and ungearing pinions and wheels.....	Feb. 28, 1871
120,004	Skinner, Justin P., Plantsville, Conn. Carriage-nut	Oct. 17, 1871
111,580	Skinner, Le Grand, Chittanooga, N. Y. Boiler-furnace.....	Feb. 7, 1871
120,677	Skinner, Smith A., Hoosick Falls, N. Y. Oil-hole cover for lubricators	Nov. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,419	Skinner, William W. and David D., Des Moines, Iowa. Rolled steel-plate for making cultivator-teeth	Sept. 26, 1871
5,270	Slack, James C. H., and John Holmes. (See Holmes & Slack.)	
117,937	Slack, John, assignor to Abraham G. Jennings, Brooklyn, N. Y. Net-fabric. (Design)	Sept. 19, 1871
4,509	Slack, Simon, Lebanon Centre, N. H. Thill-coupling	Aug. 8, 1871
4,510	Slack, William H. (See Shepler, John, assignor.)	
121,258	Sladdin, Joseph, Lawrence, Mass. Machine for making loom-harness. (Division A. reissue)	Aug. 8, 1871
121,258	Sladdin, Joseph, assignor to self and John Lord, Lawrence, Mass. Machine for making loom-harness. (Antedated Nov. 13, 1871)	Aug. 8, 1871
112,858	Slade, Dana, Chicago, Ill. Compound for treating catarrh, &c., by inhalation	Nov. 28, 1871
4,445	Same	Mar. 21, 1871
113,587	Slade, Fred. J., Trenton, N. J. Manufacture of steel	June 27, 1871
122,287	Slatcher, John, Bridgeport, Conn. Shoe-fastening	April 11, 1871
110,687	Slater, George A., Benton Harbor, Mich. Gate. (Antedated Dec. 30, 1870)	Dec. 26, 1871
116,362	Slaughter, Joel C., New York, N. Y. Water-meter	Jan. 3, 1871
4,240	Slawson, John B., New York, N. Y. Passenger fare-box	June 27, 1871
4,648	Same	Jan. 24, 1871
121,259	Same	July 12, 1871
5,401	Same	Nov. 28, 1871
115,649	Slaymaker, William A., Atlanta, Ga. Hinge for seats	Nov. 28, 1871
115,649	Sleeper, Nehemiah, Burlington, N. J. Bottle	Dec. 5, 1871
122,071	Sleeth, Robert, assignor to Bagaley, Young & Co., Pittsburgh, Pa. Manufacture of metallic rolls for rolling iron, steel, &c.	Dec. 19, 1871
120,112	Sleight, Frederick, Warren County, N. J. Seed-dropper	June 6, 1871
122,071	Slemmer, Jacob C. (See Allebaugh & Cuffell, assignors.)	Oct. 17, 1871
115,777	Sleppy, William A., Berwick, Pa. Clothes-drier	Dec. 19, 1871
114,210	Slingerland, John T., New York, N. Y. Type-distributing machine	June 6, 1871
122,072	Sloan, Thomas J., Bronxville, N. Y. Porcelain-knob machine	April 25, 1871
122,072	Sloan, Thomas J., assignor to James L. Jensen, Bronxville, N. Y. Machine for making porcelain knobs, &c.	Dec. 19, 1871
116,765	Sloan, William D., New York, N. Y. Automatic lathe for turning irregular forms	Dec. 19, 1871
116,765	Sloan, William W., Jefferson, Tex. Apparatus for photographing children	Mar. 30, 1871
115,369	Sloane, W. and I. (See Holdsworth, George, assignor)	July 4, 1871
115,988	Same	(Design.)
4,476	Same	(Design.)
115,989	Same	(Design.)
115,559	Same	(Design.)
119,523	Same	(Design.)
113,940	Sloper, Byron, Saint Louis, Mo. Apparatus for generating, carbureting, and burning hydrogen-gas	(Design.)
115,988	Same	(Design.)
4,476	Same	(Design.)
115,989	Same	(Design.)
115,559	Same	(Design.)
119,523	Same	(Design.)
113,940	Small, Charles O., and Alonzo P., and Elias B. Allen. (See Allen & Small.)	
114,211	Small, Charles W., Worcester, Mass. Reverberating reed-cells for organs or melodeons	May 30, 1871
121,429	Small, Ephraim L., Urbana, Ohio. Water-wheel	June 13, 1871
111,392	Small, James, Washington, D. C. Hydrant	July 18, 1871
115,119	Small, James H., Buffalo, N. Y. Registering ticket-punch	July 18, 1871
114,212	Same	Nov. 28, 1871
116,639	Same	Jan. 31, 1871
118,063	Same	May 23, 1871
114,212	Small, Josiah B., and Elbridge G. Matthews, Boston, Mass., and Franklin F. Holbrook, Oakham, Mass. Swivel-clevis for plows	May 23, 1871
116,639	Smart, Don Carlos, Cambridgeport, Mass. Clothes-drier	April 25, 1871
118,063	Same	April 25, 1871
118,754	Smart, Emon C., et al. (See Close, Walter R., assignor.)	Nov. 28, 1871
119,055	Smart, Luther T., assignor to self and Samuel H. Smith, Centre Ossipee, N. H. Planing-machine	Jan. 31, 1871
112,392	Smeaton, George, Brooklyn, N. Y. Window-cleaner	May 23, 1871
118,492	Smeltz, Benjamin. (See Nagle, Henry, assignor.)	May 23, 1871
116,875	Smiley, Frank, Batavia, N. Y. Pruning-shears	Sept. 5, 1871
116,875	Same	Sept. 19, 1871
117,340	Smiley, Henry, and William T. Longhead, Boston, Mass. Automatic fastener for meeting-rails of sashes	Mar. 7, 1871
120,909	Smiley, James Harvey, Caroline, N. Y. Churn-thermometer	Aug. 29, 1871
113,216	Smiley, Robert, et al. (See Guttridge, David C., assignor.)	July 11, 1871
115,120	Smith, Aaron E., Libertyville, Ill. Sawing-machine	Oct. 31, 1871
118,398	Smith, Aaron F. (See Hussey, Frank H. A., assignor.)	July 25, 1871
112,393	Smith, Abia B., Wellsburg, W. Va. Corn-sheller	July 25, 1871
120,531	Smith, Albert S., Boston, Mass. Locomotive	Nov. 14, 1871
120,531	Smith, Alexander, Hoosick Four Corners, N. Y. Apparatus for unloading and moving hay	Mar. 28, 1871
118,398	Smith, Alexander H., Elkhorn, Wis. Fence	May 23, 1871
112,393	Smith, Alfred J., San Francisco, Cal. Water-closet valve	Aug. 22, 1871
120,531	Smith, Alpheus D., Grafton, Ohio. Wash-board	Mar. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date ¹
121,430 4,265	Smith, Alpheus D., Grafton, Ohio. Faucet	Nov. 28, 1871
117,825	Smith, Amor, Cincinnati, Ohio. Machine for reducing cracklings, &c., for fertilizers (Reissue)	Feb. 14, 1871
110,874	Smith, Amos M., Chicago, Ill. Compressed-air engine	Aug. 8, 1871
114,213	Smith, Andrew H., New York, N. Y. Piston	Jan. 10, 1871
120,113	Smith, Andrew V., San Francisco, Cal. Store-truck	April 25, 1871
120,784	Smith, Arthur C., Fayetteville, N. C. Cultivator	Oct. 17, 1871
117,005	Smith, Austin H., Brooklyn, N. Y. Stone-crushing apparatus	Nov. 7, 1871
118,883	Smith, Barton C., Pekin, Ill. Animal-trip	July 11, 1871
118,884	Smith, Benjamin and Adam. (See Arkell, James, assignor.)	
118,885	Smith, Benjamin F., New Orleans, La. Smoke-stack for furnaces	Sept. 12, 1871
111,984	Same.....Furnace-grate	Sept. 12, 1871
117,572 4,303	Same.....Condensing escape-pipe	Sept. 12, 1871
111,267	Smith, Benjamin F., assignor of one-half interest to G. L. Laughland, New Orleans, La. Non-conducting material for covering steam-boilers, &c.	Feb. 21, 1871
114,983	Same.....Refrigerating and ventilating apparatus	Aug. 1, 1871
121,970	Smith, Benjamin M., assignor to Charles Goodyear, jr., and Leonard A. Sprague, New York, N. Y. Button-hole (Reissue)	Mar. 14, 1871
120,336	Smith, Benjamin R., and John C. Harris, Philadelphia, Pa. Plaster for walls	Jan. 24, 1871
112,293	Smith, Benjamin R., <i>et al.</i> (See Myers & Eunsou, assignors) (Disclaimer.)	
121,905	Smith, Calvin A., Jersey City, N. J. Car-brake	May 16, 1871
119,056	Smith, Charles, assignor to Smith, Winchester & Co., South Windham, Conn. Paper-pulp engine	Dec. 19, 1871
112,643	Smith, Charles, Brooklyn, N. Y. Coal-hod	Oct. 24, 1871
119,191	Smith, Charles Bridges, Griffin, Ga. Automatic fan	Feb. 28, 1871
111,010	Smith, Charles B., assignor to self, Lysander Wright, and William L. Chase, Newark, N. J. Valve for steam-engines	Dec. 12, 1871
120,337	Smith, Charles D., Chicago, Ill. Furnace for steam-boilers	Sept. 19, 1871
119,952	Smith, Charles E., assignor to self, and John S. and Frank T. Jaques, Lowell, Mass. Shuttle for looms	Mar. 14, 1871
4,911	Smith, Charles F., Aurora, Ill., and Augustus Haerther, Chicago, Ill. Clothes-drier	Sept. 19, 1871
117,006	Smith, C. Shaler, assignor to the Baltimore Bridge Company, Baltimore, Md. Iron viaduct	Jan. 17, 1871
115,901	Smith, Cyrus, Irwin's Station, Pa. Lubricating car-wheels	Oct. 24, 1871
115,370	Smith, Daniel, Gilsuam, and Elbridge Smith, Keene, N. H. Sap-bucket cover	Oct. 17, 1871
112,505	Smith, Daniel D. (See Crowell, Calvin, assignor.)	
113,805	Smith, Daniel H., Attleborough, Mass. Bracelet	May 16, 1871
114,214	Smith, David, Albany, N. Y. Base-burning stove	July 11, 1871
115,535	Smith, David, and John Lynch, Boston, Mass. Water-heater	June 13, 1871
111,581	Smith, Dexter, Springfield, Mass. Shot-gun	May 30, 1871
119,095	Smith, Dexter, and Martin J. Chamberlin, Springfield, Mass. Breech-loading fire-arm	Mar. 7, 1871
120,114	Smith, Dillwyn. (See Deacon, George Frederick, assignor.)	
120,465	Smith, Dolphin G., Columbus, Ohio. Ferrule	April 18, 1871
111,393	Smith, Earle A. and Dwight L., Waterbury, Conn. Buckle	April 25, 1871
115,536	Same.....same	May 30, 1871
110,938	Smith, Earle H., Bergen, N. J. Printing-press	Feb. 7, 1871
114,871	Same.....Bergen Heights, N. J. Fur-set box	Sept. 19, 1871
121,431	Same.....Sewing-machine (Extension)	Oct. 25, 1871
4,832	Smith, Edgar M., New York, N. Y. Chandelier	Oct. 17, 1871
4,468	Smith, Edward H., assignor of one-half interest to Robert Gibson, Whitestown, N. Y. Blind-style boring-machine	Oct. 31, 1871
112,084	Smith, Edward P., and Robert M. Lafferty. (See Lafferty & Smith.)	
121,432	Smith, Edward P. (See Lafferty, Robert M., assignor)	(Reissue.)
4,833	Smith, Edward T., and Joseph S. Winston, assignor to selves and C. H. Gwyer, New York, N. Y. Burial-casket	Jan. 31, 1871
119,420	Smith, Edward T., and Joseph S. Winston, New York, N. Y. Device for making ends of burial-cases	May 30, 1871
118,493	Smith, Egbert, assignor to self and Martin Sherrick, Adams County, Ill. Universal cog-wheel coupling	Jan. 10, 1871
113,806	Smith, Elbridge G. P., and Levi H. Morrill. (See Morrill & Smith.)	
115,371	Smith, Elbridge J., Washington, D. C. Envelope	May 16, 1871
118,288	Same.....Stair-rod	Nov. 28, 1871
116,230	Smith, Elizabeth P., assignor to self and Norman H. Sherburne, Chicago, Ill. Pattern for cutting dress-waists (Design)	April 18, 1871
116,231	Smith, Francis H., assignor of one-half interest to Isaac Simmons, Baltimore, Md. Drying fruit, vegetable, and meat	July 11, 1871
121,207	Smith, Frederick H., Baltimore, Md. Manufacture of metal tubes and columns	Feb. 21, 1871
116,232	Same.....Metallic column	Nov. 28, 1871
116,233	Smith, Frederick J., Chicago, Ill. Public urinal and water-closet (Design)	April 18, 1871
116,234	Smith, Fridolin, Tiffin, Ohio. Wagon-hound	Sept. 26, 1871
116,235	Smith, Gad, assignor to self and Dickinson & Brothers, Woodstown, N. J. Broom-head	Aug. 29, 1871
116,236	Smith, George, Rochester, N. Y. Milking-stool	April 18, 1871
116,237	Smith, George, Stratford, Canada. Invalid-bedstead	May 30, 1871
116,238	Smith, George, Detroit, Mich. Billiard-table	Aug. 22, 1871
116,239	Smith, George, assignor to John C. De Lany, Rochester, N. Y. Carrier for unloading hay	June 20, 1871
116,240	Same.....Sling for hay-elevators	June 20, 1871
116,241	Smith, George B., Shopiere, Wis. Stubble-turner for plows	Nov. 21, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,357	Smith, George C., and Frank M. Burrows, Baltimore, Md. Fire-escape.....	April 4, 1871
117,007	Same.....same.....	July 11, 1871
119,539	Smith, George C., assignor of one-half interest to J. C. Phillips, Hamilton, Ohio. Clothes-drier.....	Oct. 3, 1871
120,785	Smith, George C., and Charles H. Dietrich, Middleville, Mich. Clothes-drier...	Nov. 7, 1871
115,247	Smith, George E., Fitchburgh, Mass. Lubricator for machinery.....	May 23, 1871
120,543	Same.....Sash-balance.....	Oct. 31, 1871
119,478	Smith, George E., New York, N. Y. Self-closing gas-burner.....	Oct. 3, 1871
118,239	Smith, George H., Guilford, Me. Machine for making excelsior.....	Aug. 22, 1871
113,104	Smith, G. L. (See Cook, John, assignor.) Smith, George L., assignor to the Bridgeport Brass Company, Bridgeport, Conn. Lamp-burner.....	Mar. 28, 1871
115,537	Smith, George M., Pittsburgh, Ind. Sulky-attachment to plows.....	May 30, 1871
115,902	Smith, George W., New York, N. Y. Door for stoves.....	June 13, 1871
122,193	Smith, George W., New Haven, Conn. Adjustable cut-off valve.....	Dec. 26, 1871
111,783	Smith, George W., and John A. Younce. (See Younce & Smith.) Smith, Guilford, South Wyndham, Conn. Weaving tubular fabrics.....	Feb. 14, 1871
115,372	Smith, Hamilton E., assignor to Mary Jane Smith, New-York, N. Y. Clothes-wringer.....	May 30, 1871
119,889	Smith, Harrison, and Smiley Purvine. (See Purvine & Smith.) Smith, Harry R., and Rufus Folsom, Cincinnati, Ohio. Stem-winding watch...	Oct. 10, 1871
121,260	Same.....Stem winding and setting watch.....	Nov. 28, 1871
120,678	Smith, Hemphill, Shelby Station, Tenn. Horse-power.....	Nov. 7, 1871
115,248	Smith, Henry, assignor of one-half interest to Fred. R. Gibbs, Providence, R. I. Pulley-block.....	May 23, 1871
120,216	Smith, Henry, assignor to self and Frederick Sutliff, Southington, Conn. Well-bottom.....	Oct. 24, 1871
119,724	Smith, Henry A. (See Jones, John, assignor.) Smith, Henry C., Cleveland, Ohio. Sewing-machine treadle.....	Oct. 10, 1871
114,484	Same.....Treadle for sewing-machine..... Smith, H. D., & Co. (See Morse, Francis B., assignor.).....(Ten cases.) Smith, Henry G., assignor of one-half interest to Elijah D. Castelow, Meriden, Conn. Stove-pipe thimble.....	Oct. 31, 1871 May 2, 1871
112,859	Smith, Henry Julius, Boston, Mass. Electric fuse. (Antedated March 7, 1871).	Mar. 21, 1871
115,121	Smith, Henry M., New York, N. Y. Medicine-case.....	May 23, 1871
122,288	Smith, Hiram, Titusville, Pa. Sash-balance.....	Dec. 26, 1871
110,688	Smith, Hiram Moore, Richmond, Va. Seed-dropper.....	Jan. 3, 1871
119,192	Smith, Hoell B., Tremont, Ill. Gang-plow.....	Sept. 19, 1871
112,085	Smith, Horace, and D. B. Wesson. (See Dodge, William C., assignor.) (Reissue.) Smith, Howard, and James Potter, Portland, Me. Spring bed-bottom.....	Feb. 21, 1871
119,659	Smith, Howard, and Dora E. Brown. (See Prescott, Shubael, assignor.) Smith, Howard C., Coxsackie, N. Y. Curry-comb and brush.....	Oct. 3, 1871
119,660	Smith, Hugh, West Gray, Me. Sleigh.....	Oct. 3, 1871
119,890	Smith, Hugh, and John Vanlunavee. (See Vanlunavee & Smith.) Smith, Hugh H., and George W. Bishop. (See Bishop & Smith.) Smith, Isaac, New York, N. Y. Lamp-chimney cleaner.....	Oct. 10, 1871
117,119	Smith, Isaac, assignor of one-half interest to William Sanderson, New York, N. Y. Mold for composition articles.....	July 18, 1871
117,826	Same.....Die-mold for composition articles. (Antedated July 25, 1871)...	Aug. 8, 1871
120,115	Smith, Jacob W., Dixon, Iowa. Wagon-standard.....	Oct. 17, 1871
112,506	Smith, James, Altoona, Pa. Spark-arrester.....	Mar. 7, 1871
118,161	Smith, James, Richmond, Ind. School-desk.....	Aug. 15, 1871
114,872	Smith, James H., Newark, Ohio. Gas-retort.....	May 16, 1871
114,613	Smith, James K. P., assignor to self and L. S. Shuler, Jeffersonville, Ind. Plane.....	May 9, 1871
115,122	Smith, James P., assignor to self and J. S. Black, Hillsborough, Ohio. Fifth-wheel for vehicles.....	May 23, 1871
119,891	Smith, James S., Middletown, Conn. Office time-indicator.....	Oct. 10, 1871
116,232	Smith, James S. and William B., et al. (See Rice, Henry J., assignor.) Smith, James W., assignor to self and Joseph Maseth, Orion, N. Y. Lifting-jack.....	June 20, 1871
114,215	Smith, James W., Columbus, Ga. Combined grist-mill and cotton-seed huller...	April 25, 1871
4,446	Same.....Combined grist-mill and cotton-seed huller.....(Reissue)...	June 27, 1871
122,188	Smith, John, Brantford, Canada. Fire-place.....	Feb. 28, 1871
114,984	Smith, John, Burlington, Wis. Thrashing-machine and grain-separator.....	May 16, 1871
	Smith, John. (See Page, William, assignor.) Smith, John, and Silent Constant. (See Constant & Smith.) Smith, John A. V., and Theodore T. Abbot. (See Abbot & Smith.) Smith, John B., Bowensburgh, Ill. Grinding-mill.....	Dec. 12, 1871
121,819	Smith, John B. (See Pierce, James D., assignor.) Same.....(See Horton, William P., assignor.) Smith, J. Boardman, assignor to G. Edward Cleeton, New Haven, Conn. Coop for fowls. (Antedated Aug. 16, 1871).....	Aug. 29, 1871
117,938	Smith, John C. (See Arden, Henry, assignor.).....(Two cases.) Smith, John Crawford, assignor to self, Samuel Bradford Smith, and Nathaniel Stuart, Zanesville, Ohio. Flour-bolt.....	Aug. 8, 1871
4,698	Smith, John E., Waterbury, Conn. Buckle-frame.....(Design)...	Mar. 7, 1871
117,694	Same.....Slide for suspenders.....	Aug. 1, 1871
120,116	Smith, John E., New York, N. Y. Printing-telegraph.....	Oct. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,479	Smith, John F., Boston, Mass. Shutter-fastener. (Antedated Sept. 16, 1871)....	Oct. 3, 1871
120,679	Smith, John Harry, assignor to Florean Grosjean, Brooklyn, N. Y. Spoon	Nov. 7, 1871
4,771	Smith, John H., assignor to Hartford Carpet Company, Enfield, Conn. Carpet-pattern	(Design) April 4, 1871
4,772	Same..... Carpet-pattern	(Design) April 4, 1871
4,956	Same..... same	(Design) May 30, 1871
5,088	Same..... same	(Design) July 4, 1871
5,372	Same..... same	(Design) Nov. 21, 1871
113,699	Smith, John Joseph Charles, assignor to Metallic Art Works, Somerville, Mass. Die for taking impressions from cloth, &c	April 11, 1871
4,511	Smith, John R., Salem, Mass. Grate-bar	(Reissue) Aug. 8, 1871
110,875	Smith, John S. (See Drake, Ellis, assignor.)	
120,005	Smith, John W., Keokuk, Iowa. Ceremonial-bell	Jan. 10, 1871
120,006	Smith, John Y., Pittsburgh, Pa. Metallurgic furnace. (Antedated Oct. 3, 1871) ..	Oct. 17, 1871
120,007	Same..... Lining for metallurgic furnaces	Oct. 17, 1871
120,008	Same..... Apparatus for feeding fuel into furnaces	Oct. 17, 1871
120,680	Same..... Apparatus for feeding pulverized fuel to metallurgical and other furnaces	Oct. 17, 1871
	Same..... Apparatus for feeding pulverized fuel to furnaces. (Antedated Nov. 4, 1871)	Nov. 7, 1871
120,832	Smith, Joseph, Ridgeville, Ohio. Potato-digger	Nov. 14, 1871
114,059	Smith, Joseph, assignor to Thomas Rawsthorne, England. Faller for spinning-mules	April 25, 1871
5,055	Smith, Joseph H., Birmingham, Pa., Alois Kwoezalla, Lawrenceville, Pa., and Daniel C. Ripley, Birmingham, Pa. Jelly glass and cup	(Design) June 27, 1871
111,692	Smith, Joseph T., Louisville, Ky. Railroad-ticket. (Antedated Feb. 4, 1871) ..	Feb. 7, 1871
	Smith, Joseph W., and Thomas O. Potter. (See Potter & Smith)	(Two cases.)
116,506	Smith, Julius, Philadelphia, Pa. Jewelry-case	June 27, 1871
121,676	Smith, Justin M., Haddam Neck, Conn. Plow	Dec. 5, 1871
	Smith, J. Willard, and Ira T. Curtis. (See Curtis & Smith.)	
116,879	Smith, Kilburn, Lowell, Mass. Musical instrument	July 11, 1871
	Smith, Lemuel. (See Soley, William H., assignor.)	
115,249	Smith, Louis P., Middletown, Pa. Lifting-jack	Oct. 31, 1871
	Smith, Loyst J., assignor to self and Henry D. Blake, New York, N. Y. Lock-nut	May 23, 1871
	Smith, Luke Albert, Kansas City, Mo. Soldering-apparatus	Oct. 31, 1871
111,985	Smith, Marcus B., Mattoon, Ill. Railway-car coupling	Feb. 21, 1871
116,233	Smith, Milo, Clinton, Mich. Stove-pipe shelf	June 20, 1871
	Smith, M. P., and N. S. C. Perkins. (See Reding, Loyal, assignor.)	
	Smith, Newell E. (See King, Lewis, assignor)	(Reissue.)
	Smith, Newton J. (See Stone, William H., assignor.)	
116,766	Smith, Noah, McAllisterville, Pa. Tan-vat	July 4, 1871
121,208	Smith, Obadiah S., and Clark R. Hopkins, Middletown, Conn. Clothes-drier ..	Nov. 21, 1871
115,650	Smith, Olney L., Providence, R. I. Attaching knobs to their spindles	June 6, 1871
118,824	Smith, Olney L., and James F. Ulton, Providence, R. I. Car-coupling	Sept. 12, 1871
116,767	Smith, Orren M., Philadelphia, Pa. Umbrella runner or notch	July 4, 1871
119,892	Smith, Othniel J., Wauwatosa, Wis. Broiler	Oct. 10, 1871
115,123	Smith, Peter E., Scotland Neck, N. C. Cotton-seed planter	May 23, 1871
119,893	Smith, Rachel P., Dubuque, Iowa. Fire-kindler	Oct. 10, 1871
121,473	Smith, Reuben A., assignor of one-half interest to Thomas R. V. Bradley, East Weare, N. H. Bed-bottom	Dec. 5, 1871
4,559	Smith, Richard, assignor to Mackellar, Smiths & Jordan, Philadelphia, Pa. Type	(Design) Jan. 3, 1871
4,560	Same..... same	(Design) Jan. 3, 1871
4,561	Same..... same	(Design) Jan. 3, 1871
4,743	Same..... same	(Design) Mar. 28, 1871
5,056	Same..... same	(Design) June 27, 1871
115,124	Smith, Robert H., assignor to self and James B. Sauner, Baltimore, Md. Bobbin-winder for sewing-machines	May 23, 1871
120,786	Smith, Robert M., Baltimore, Md. Revenue-stamp protector	Nov. 7, 1871
	Smith, Robert R., et al. (See Brodie, Smith & Tyler.)	
	Smith, Robert R., and Anthony T. Brodie. (See Brodie & Smith.)	
116,234	Smith, Roland H., Pittsburgh, Pa. Street-lamp	June 20, 1871
4,623	Smith, Roswell T., assignor to self, John G. Blunt, William Earl, and J. K. Priest, Nashua, N. H. Transmitting motive-power	(Reissue) Nov. 7, 1871
118,162	Smith, Samuel, Bourbon, Ind. Washing-machine	Aug. 15, 1871
110,689	Smith, Samuel, assignor to self and Charles Noble & Co., Philadelphia, Pa. Pattern for molding stove-lids	Jan. 3, 1871
113,807	Same..... Cooking-stove	April 18, 1871
114,614	Same..... Heating-stove	May 9, 1871
	Smith, Samuel H. (See Smart, Luther T., assignor.)	
	Smith, Samuel J. (See Chapman, James W., assignor.)	
114,721	Smith, Samuel K., Newark, N. J. Machine for measuring, stretching, and skeining silk	May 9, 1871
	Smith, Samuel R., Cincinnati, Ohio. Method of feeding lumber laterally in sawing-machines	(Extension) Jan. 19, 1871
	Same..... Method of feeding lumber laterally in sawing-machines. (Disclaimer filed)	
4,409	Same..... Circular-saw mill	(Reissue) Jan. 28, 1871
	Smith, Samuel R., and Edward Myers. (See Myers & Smith.)	May 30, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,152	Smith, Scott A., assignor to Cresson & Smith, Philadelphia, Pa. Coupling for shafting.....	Jan. 24, 1871
111,582	Same..... Pulley.....	Feb. 7, 1871
112,507	Smith, Solomon P., Waterford, N. Y. Horse hay-rake.....	Mar. 7, 1871
	Smith, Solomon S., <i>et al.</i> (See Elliott, H. T., assignor.)..... (Reissue.)	
111,692	Smith, Stephen N., Providence, R. I. Japanning eyelets, buttons, &c.....	Feb. 14, 1871
112,973	Same..... Manufacture of eyelet-stock.....	Mar. 21, 1871
112,086	Smith, Stephen N., and Solomon W. Young, assignors to Union Eyelet Company, Providence, R. I. Device for separating eyelets.....	Feb. 21, 1871
112,746	Smith, Sydney E., assignor to self and Frederic G. Ford, Washington, D. C. Suspender.....	Mar. 14, 1871
4,643	Smith, Theron L., North Attleborough, Mass. Bracelet..... (Design)	Feb. 7, 1871
4,644	Same..... same..... (Design)	Feb. 7, 1871
119,193	Smith, Thomas C., and Norton L. Francis, Oquawka, Ill. Churn.....	Sept. 13, 1871
	Smith, Thomas J., <i>et al.</i> (See Decker, John N., assignor.).....	
	Smith, Thomas R. (See Manier, Benjamin T., assignor.).....	
	Smith, Waterman. (See Brooks, Benjamin G., assignor.).....	
111,394	Smith, Wesley D., Washington, D. C. Electro-magnetic indicator.....	Jan. 31, 1871
113,217	Smith, W. Dean, and Andrew J. Chase; said Chase assignor to said Smith, Union, N. Y. Saw-mill.....	Mar. 28, 1871
115,373	Smith, Willard H., New York, N. Y. Device for igniting gas and other lights.....	May 30, 1871
111,091	Smith, William, Pittsburgh, Pa. Collapsing core-barrel.....	Jan. 17, 1871
115,135	Smith, William, assignor to self and H. Grebe, Tomah, Wis. Stamp-pulling machine.....	May 23, 1871
4,447	Smith, William, and Hiram D. Rogers, assignors through mesne assignments to Hiram D. and Lebbeus H. Rogers, Cincinnati, Ohio. Producing prices current, bulletins, &c..... (Reissue)	June 27, 1871
118,290	Smith, William D., Homerville, Ga. Hand garden-plow.....	Aug. 22, 1871
121,013	Smith, William F. H., Milwaukee, Wis. Railway-car brake.....	Nov. 14, 1871
114,360	Smith, William H., assignor to the Heath & Smith Manufacturing Company, Portland, Me. Grocers' canister.....	May 2, 1871
115,136	Smith, William M., Augusta, Ga. Cotton and hay press.....	May 23, 1871
5,319	Smith, William M., assignor to the Meriden Britannia Company, West Meriden, Conn. Socket for lifting-handles..... (Design)	Oct. 17, 1871
120,787	Smith, William Robert, Seaford, Canada. Curtain-fixture.....	Nov. 7, 1871
111,092	Smith, William Sooy, and William Reuschel; said Reuschel assignor to said Smith, Chicago, Ill. Machine for sinking screw-piles.....	Jan. 17, 1871
112,189	Smith, William T., assignor to self and William T. Maher, West Zanesville, Ohio. Sewing-machine.....	Feb. 23, 1871
121,014	Smith, William T., West Zanesville, Ohio. Binding-guide for sewing-machines.....	Nov. 14, 1871
	Smith, Winchester & Co. (See Hatch, Jonathan, assignor.).....	
114,615	Smitley, John, White Cottage, Ohio. Surgical bandage.....	May 9, 1871
116,105	Smoot, William S., Ilion, N. Y. Metallic cartridge.....	June 20, 1871
116,106	Same..... Breech-loading fire-arm.....	June 20, 1871
120,338	Same..... Metallic cartridge.....	Oct. 24, 1871
120,788	Smoot, William S., assignor to self and E. Remington & Sons, Ilion, Ill. Breech-loading fire-arm.....	Nov. 7, 1871
110,690	Smyser, Jacob H., Pittsburgh, Pa. Lubricating compound.....	Jan. 3, 1871
113,588	Same..... Roofing-composition.....	April 11, 1871
4,624	Same..... same..... (Reissue)	Nov. 7, 1871
122,289	Same..... Disintegrating and vulcanizing substances.....	Dec. 26, 1871
118,652	Smyth, David M., assignor to Joseph W. Stickler, Theodore C. Elliott, and William H. Wilson, Orange, N. J. Electro-magnetic sewing-machine.....	Aug. 29, 1871
119,246	Smyth, David M., assignor to Joseph W. Stickler and Theodore C. Elliott, Orange, N. J. Feeding-mechanism for sewing-machines.....	Sept. 26, 1871
118,651	Smyth, David M., assignor to Henry G. Thompson, Orange, N. J. Electro-magnetic sewing-machine.....	Aug. 29, 1871
119,894	Smyth, D. M., assignor through mesne assignments to Henry G. Thompson, Orange, N. J. Book-binding.....	Oct. 10, 1871
119,661	Smyth, Samuel, East Bridgewater, Pa. Gate.....	Oct. 3, 1871
	Smyth, William A. S. and Robert L. (See Ware, Edmund R., assignor.).....	
111,784	Smyth, William H., Stenbenville, Ohio. Apparatus for injecting preservative liquids into wood.....	Feb. 14, 1871
111,936	Smythe, Horner S., Darlington, Wis. Heel of boots and shoes.....	Feb. 21, 1871
112,644	Snead, Charles S., Louisville, Ky. Sky-light.....	Mar. 14, 1871
4,339	Snedaker, Warren B., Phoenix, N. Y. Car-coupling..... (Reissue)	April 11, 1871
112,363	Snedden, William Tait, Johnstown, Pa. Breech-loading fire-arm.....	June 27, 1871
112,364	Same..... same.....	June 27, 1871
111,208	Snediker, William E., assignor to José F. de Navarro, New York, N. Y. Liquid-meter.....	Jan. 24, 1871
116,640	Sneider, Charles E., assignor to self, Josiah Pennington, jr., and Nicholas G. Penniman, Baltimore, Md. Shot-cartridge for breech-loading fire-arm.....	July 4, 1871
5,267	Snell, Charles Edwin, Chatham, Canada. Reed-organ pipe..... (Design)	Aug. 15, 1871
114,616	Snell, Daniel, Clark County, Ohio. Tumbling-shaft.....	May 9, 1871
	Snell, J. H. D. (See Carpenter, Milo, assignor.).....	
120,893	Snell, Peter M., Oscar, and Ainsworth S., Williamsburgh, Ohio. Chair. (Ante-dated Oct. 26, 1871).....	Nov. 14, 1871
116,365	Snider, George B., New York, N. Y. Base-burning fire-place heater.....	June 27, 1871
	Snider, John F., <i>et al.</i> (See Edwards, Wesley, assignor.).....	
112,974	Snider, John Vaughan, Philadelphia, Pa. Holder for drinking-glasses.....	Mar. 21, 1871
120,789	Snider, Samuel, assignor to self, A. P. Harcourt, and G. H. Stone, Taylorsville, Ky. Cultivator.....	Nov. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,790	Snively, Charles H., Millersburgh, Pa. Camera-stand	Nov. 7, 1871
	Snook, Jonathan, and Abraham Freed. (<i>See Freed & Snook.</i>)	
122,290	Snow, Charles P., Freeport, Ill. Lightning-rod. (Antedated Dec. 23, 1871)	Dec. 26, 1871
118,886	Snow, George H., New Haven, Conn., and Edwin H. Hawley, Kalamazoo, Mich., assignors to Edwin H. Hawley. Air-pistol. (Antedated Aug. 25, 1870)	Sept. 12, 1871
121,552	Snow, Henry E., <i>et al.</i> (<i>See Murray, George, jr., assignor.</i>)	
5,120	Snow, Loxor B., Cleveland, Ohio. Dumping-wagon	Dec. 5, 1871
118,064	Snow, Marcus Leonard, West Sterling, Mass. Hanging-vase. (Design) ..	July 11, 1871
	Snow, William B., Brooklyn, N. Y. Valve for steam-pumps and engines. (Antedated Aug. 3, 1871)	Aug. 15, 1871
118,065	Same..... Adjustable-gauge car-wheel	Aug. 15, 1871
111,785	Snowden, George, Hudson, N. J. Bedstead	Feb. 14, 1871
	Snowden, Henry A. (<i>See Ayres & Cole, assignors.</i>)	
121,677	Snowhill, Daniel, and John D. Brown, Spottswood, N. J. Rotary valve	Dec. 5, 1871
119,057	Snyder, August, Allegheny City, Pa. Stop-valve	Sept. 19, 1871
119,421	Snyder, Byron, Clinton, Wis. Gate	Sept. 26, 1871
115,538	Snyder, Henry F., Williamsport, Pa. Roll for gang saw-mills	May 30, 1871
114,361	Snyder, Henry F. and George S., Williamsport, Pa., and Antes Snyder, Freeport, Pa. Oil-tank	May 2, 1871
115,127	Same..... same.....	May 23, 1871
116,366	Same..... same.....	June 27, 1871
113,589	Snyder, James P., Brooklyn, N. Y. Electro-magnetic burglar-alarm	April 11, 1871
118,399	Snyder, John H., Richmond, Va. Machine for making horseshoes	Aug. 22, 1871
121,678	Snyder, John H., assignor to self and George Hepburn, Rockford, Ill. Bellows. Snyder, John W. (<i>See Wells, Gabriel J., assignor.</i>)	Dec. 5, 1871
	Snyder, Milton J., <i>et al.</i> (<i>See Densmore, Myron H., assignor.</i>)	
120,117	Snyder, Peter, Grand Rapids, Mich. Hub-mortising machine	Oct. 17, 1871
115,250	Snyder, Peter A., Jersey City, N. J. Towel-rack	May 23, 1871
117,214	Snyder, Philip A., Butlerville, Ohio. Halter-buckle	July 18, 1871
120,015	Snyder, Philip A., assignor of one-half interest to Samuel Gustin, Butlerville, Ohio. Snap and buckle combined	Nov. 14, 1871
	Snyder, Theophilus, and David Frank. (<i>See Frank & Snyder.</i>)	
110,796	Snyder, William., Bullskin Township, Pa. Hydraulic engine	Jan. 3, 1871
	Snyder, William, <i>et al.</i> (<i>See Graham, Snyder & O'Brien.</i>)	
119,194	Snyder, William H., Phelps, N. Y. Water-wheel case	Sept. 19, 1871
115,374	Solier, William, Boston, Mass. Fly-net	May 30, 1871
111,395	Solari, Antonio, assignor of one-half interest to Francis Maquet, Louisville, Ky. Composition for floors, pavements, &c.	Jan. 31, 1871
112,860	Soley, George B., Philadelphia, Pa. Hand-tool for carving and engraving	Mar. 21, 1871
	Soley, William H., and William Downing. (<i>See Downing & Soley.</i>)	
115,375	Soley, William H., assignor to Lemuel Smith, Philadelphia, Pa. Apparatus for drying paper	May 30, 1871
113,941	Solmaus, Alden, New York, N. Y. Hat-ventilator	April 18, 1871
112,294	Somes, Daniel E., Washington, D. C. Cooling, freezing, and preserving solids, liquids, and gases	Feb. 28, 1871
117,341	Same..... Lamp-chimney. (Antedated July 12, 1871)	July 25, 1871
114,985	Somes, Daniel E. and Frank C., Washington, D. C. Apparatus for cooling and preserving milk and other liquids	May 16, 1871
115,251	Sommer, Henry, and Charles Bauer, Newark, N. J. Fluting-machine	May 23, 1871
118,495	Sommer, Henry, and Albert Weiss, assignors to Henry Sommer & Co., Massillon, Ohio. Manufacture of yeast	Aug. 29, 1871
117,573	Sontag, Hugo, Germany. Jar-movement for rock-drills	Aug. 1, 1871
120,544	Sorey, James H., Flora, Ill. Cotton-seed planter	Oct. 31, 1871
	Sortman, Benjamin F., and Frank C. Doran. (<i>See Doran & Sortman.</i>)	
115,376	Souder, James D. (<i>See Sparks, William H., assignor.</i>)	
	Souder, John, and Elias Miller, Litz, Pa. Harvester	May 30, 1871
	Southwick, Charles F., and Harlow Gilson. (<i>See Gilson & Southwick.</i>) (Design.)	
115,128	Southwick, James M. K., Newport, R. I. Hammock-support	May 23, 1871
117,342	Southwick, Masa Branch, Mont Saint Hilaire, Canada. Flax-brake	July 25, 1871
	Southworth, Consider, and George A. Cooper. (<i>See Cooper & Southworth.</i>)	
116,880	Southworth, Luther, and Sewell G. Cushing, Stoughton, Mass. Machine for making screws	July 11, 1871
114,722	Souweine, F., New York, N. Y. Extension-table	May 9, 1871
	Sowden, Adam, and Patrick J. Hogan. (<i>See Hogan & Sowden.</i>)	
	Sowers, Henry M., <i>et al.</i> (<i>See Tenant, Hanson P., assignor.</i>)	
116,367	Sowle, John, Boston, Mass. Double headed and pointed dowell-brad	June 27, 1871
	Spadone & Fitzgerald. (<i>See Fitzgerald, Walter H., assignor.</i>)	
116,641	Spain, Edward L., <i>et al.</i> (<i>See Quann, William, assignor.</i>)	(Two cases.)
118,163	Spalding, Enos, Plainfield, N. H. Cart-body fastening	July 4, 1871
113,462	Spalding, Warren A., Waterbury, Conn. Toilet-bottle for tooth-powder	Aug. 15, 1871
	Spangler, George C., assignor to self and Simpson H. Daft, Allegheny City, Pa. Car-coupling	April 4, 1871
117,215	Spangler, Jacob W., Jackson Township, Pa. Cultivator	July 18, 1871
114,617	Spangler, Jacob W., Jackson Township, Pa., and William L. Boyd, York, Pa. Rock-drilling machine	May 9, 1871
118,164	Spanier, Adam, Saint John, Ind. Hay-press	Aug. 15, 1871
	Spark, Charles, <i>et al.</i> (<i>See Altenbury & Lambrix, assignors.</i>)	
118,496	Sparks, John, assignor of one-half interest to Allen B. Kingsland and William H. Eddy, Rouseville, Pa. Petroleum-pump	Aug. 29, 1871
117,475	Sparks, Theodore Warren, Rochester, N. Y. Car-coupling. (Antedated July 13, 1871)	July 25, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,693	Sparks, William E., assignor to Sargent & Co., New Haven, Conn. Spring-bolt.	Feb. 7, 1871
115,400	Same.....Knob for picture-nails.....	Aug. 22, 1871
5,345	Same.....Cupboard-latch.....(Design).....	Oct. 31, 1871
5,346	Same.....Chest-handle.....(Design).....	Oct. 31, 1871
122,074	Sparks, William H., assignor to self and James D. Souder, Absecon, N. J. Axle for vehicles.....	Dec. 19, 1871
	Spaulding, Albert F., and William Aldrich. (<i>See</i> Aldrich & Spaulding.)	
120,217	Spaulding, George F., Broadhead, Wis. Stove-drum.....	Oct. 24, 1871
111,987	Spaulding, George H., Rockford, Ill. Harvester.....	Feb. 21, 1871
115,778	Spaulding, Henry W., Chelsea, Vt. Axle-gauge.....	June 6, 1871
118,895	Spaulding, Leander, and Elias E. Guy, Norfolk, Va. Device for tapping gas and water pipes.....	Oct. 10, 1871
115,826	Spayd, George, Alma, N. Y. Churn.....	Sept. 12, 1871
116,768	Speaker, Jacob, and William Dorn, Chicago, Ill. Cooking-stove.....	July 4, 1871
119,058	Spear, Bennett P., Charlestown, Mass. Operating water-closet cocks.....	Sept. 19, 1871
121,209	Spear, Hatherly, Portland, Me. Pump.....	Nov. 21, 1871
114,362	Spear, John I., San Francisco, Cal. Garden-sprinkler. (Antedated April 27, 1871).....	May 2, 1871
119,422	Spear, Vivian K., Lynn, Mass. Sole and heel burnishing machine.....	Sept. 26, 1871
115,651	Spear, Vivian K., assignor to Tapley Heel-Burnisher Machine Company, Lynn, Mass. Machine for burnishing boot and shoe heels.....	June 6, 1871
	Spear, Vivian Kimball, <i>et al.</i> (<i>See</i> Hawkins, Mead & Spear.)	
111,694	Spear, William, Ferry Village, Me. Device for reefing and furling sails.....	Feb. 7, 1871
	Specker, Carl A., <i>et al.</i> (<i>See</i> Weissnux & Specker.)	
114,618	Speckner, George, Madison, Wis. Spring bed-bottom. (Antedated May 6, 1871).....	May 9, 1871
119,796	Speer, Alfred, Passaic, N. J. Endless traveling side-walk.....	Oct. 10, 1871
119,423	Speer, William W., Allegheny City, Pa. Combined subsoil-drill and side-hill plow.....	Sept. 26, 1871
117,216	Spellman, William C., Hartford, Conn. Hard-rubber trunk.....	July 18, 1871
120,791	Same.....Broom.....	Nov. 7, 1871
111,269	Spenard, Thelesphore, Coaticoke, Canada. Steel glass cutter and knife.....	Jan. 24, 1871
	Spence, Jacob, <i>et al.</i> (<i>See</i> Tenant, Hanson P., assignor.)	
	Spencer, Adam, <i>et al.</i> (<i>See</i> Richardson & Spencer.)	
111,484	Spencer, Albert H., Providence, R. I. Wringing-machine.....	Jan. 31, 1871
	Same.....(<i>See</i> Huguin, Robert B., assignor) ..(Two cases.) (Reissue.)	
112,645	Spencer, Benjamin M., Newark, N. J. Boiler-flue brush.....	Mar. 14, 1871
115,252	Spencer, Charles F., Cleveland, Ohio. Trap-ball.....	May 23, 1871
120,339	Same.....Dredge-box.....	Oct. 24, 1871
	Spencer, Isaac M. (<i>See</i> Drury, Charles H., assignor.)	
4,358	Spencer, Robert, Newark, N. J. Saddle or sweat cloth.....(Reissue).....	April 25, 1871
118,291	Spengler, Christian George, Hoboken, N. J. Dumping-engine.....	Aug. 22, 1871
116,107	Sperling, William H., Washington, N. J. Bottle-capping machine.....	June 20, 1871
	Sperry, David R., and Richard W. Thickins. (<i>See</i> Thickins & Sperry.)	
113,590	Sperry, Ebenezer, Chicago, Ill. Apparatus for evaporating cane-juice, &c.....	April 11, 1871
117,476	Same.....Cooking-apparatus.....	July 25, 1871
111,270	Sperry, Timothy S., Chicago, Ill. Bolster and pillow.....	Jan. 24, 1871
116,507	Sperry, Timothy S., assignor to Charles C. Carpenter, Chicago, Ill. Hoop-skirt.....	June 27, 1871
	Sperry, William D., and William C. Broyhill. (<i>See</i> Broyhill & Sperry.)	
117,827	Sperry, Zealous, Midland, Mich. Saw-sharpening machine.....	Aug. 8, 1871
111,756	Spicer, Andrew J., Galesburgh, Mich. Prairie-plow jointer.....	Feb. 14, 1871
	Spicer, Pratt A., and Montgomery Crossman. (<i>See</i> Crossman & Spicer.) (Two cases.)	
5,263	Spicer, William A., Providence, R. I. Cooking-stove.....(Design).....	Sept. 12, 1871
115,652	Spies, Frederick Ch., New York, N. Y., and Anton Dobler, Brooklyn, N. Y. Malt-reservoir.....	June 6, 1871
121,210	Spigelmyer, Linda, Easton, Pa. Combined corset and skirt-supporter.....	Nov. 21, 1871
116,368	Spillmann, Henry, New Orleans, La. Supporter and pessary.....	June 27, 1871
	Spinney, William N. (<i>See</i> Dunbrack, Charles S., assignor).....(Reissue.)	
121,433	Spitzmiller, August, assignor to self and Norman H. Galusha, Buffalo, N. Y. Base-burning stove. (Antedated Nov. 11, 1871).....	Nov. 28, 1871
113,591	Spooner, D. Brainard, Syracuse, N. Y. Liquid and gas meter.....	April 11, 1871
118,755	Same.....Fluid-meter.....	Sept. 5, 1871
121,211	Same.....Liquid-meter.....	Nov. 21, 1871
120,118	Spooner, Jonas C., Houlton, Me. Harness.....	Oct. 17, 1871
111,485	Spoor, Stephen, Phelps, N. Y. Base-burning stove.....	Jan. 31, 1871
115,129	Spore, Isaac W., New Scotland, N. Y. Brake-block for vehicles. (Antedated May 15, 1871).....	May 23, 1871
115,130	Spore, William I., New Scotland, N. Y. Wagon-brake.....	May 23, 1871
111,396	Sprague, Edwin, assignor to self and John R. Blakeslee, Allegheny City, Pa. Bench-vice for wood-work.....	Jan. 31, 1871
112,861	Sprague, Franklin L., assignor to William H. Ioane, Keene, N. H. Gauge for saw-tables.....	Mar. 21, 1871
116,769	Sprague, George, South Addison, N. Y. Hoisting-apparatus.....	July 4, 1871
119,662	Sprague, Henry A., Charlotte, Me. Horse-holder for sleighs.....	Oct. 3, 1871
119,540	Sprague, James H., Providence, R. I. Bracelet.....	Oct. 3, 1871
122,199	Spragne, Lewis and Charles H., Henderson, N. Y. Clothes-pin. (Antedated Dec. 16, 1871).....	Dec. 26, 1871
116,235	Spreckels, Peter, and James Peterson, assignors to Claus and Peter Spreckels, San Francisco, Cal. Machine for molding, pressing, and cutting sugar.....	June 20, 1871
113,808	Spring, John M., assignor to P. and F. Corbin, New Britain, Conn. Hook for bird-cages.....	April 18, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Spring, Solomon C. (<i>See</i> Lewis, Benjamin B., assignor.)	
121,734	Springer, Samuel, Chicago, Ill. Bedstead	Dec. 12, 1871
112,975	Springer, Theodore G., Saint Louis, Mo. Gas-machine. (Antedated March 10, 1871)	Mar. 21, 1871
119,663	Same.....Fayette City, Pa. Gas-machine	Oct. 3, 1871
121,679	Same.....Manufacture of illuminating-gas	Dec. 5, 1871
114,060	Springwoter, Moritz, Louisville, Ky. Passenger-register	April 25, 1871
121,820	Sprinkel, George, North Leverett, Mass. Stone-puller	Dec. 12, 1871
112,190	Sprogle, Daniel M., and Joseph E. Dickson, Annapolis, Md. Ventilator	Feb. 28, 1871
115,653	Sprogle, Daniel M., Annapolis, Md. Coping for walls	June 6, 1871
117,343	Same.....Mold	July 25, 1871
120,834	Same.....Kiln for the manufacture of artificial stone	Nov. 14, 1871
117,344	Sproul, Eleanor C., Green Point, N. Y. Braid-guiding attachment for sewing-machines	July 25, 1871
113,105	Sproul, Frank, Doniphan, Kans. Portable fence	Mar. 28, 1871
	Squier, George L. (<i>See</i> Stevens, Henry B., assignor.)	
114,363	Sreeves, Charles, Atchison, Kans. Bridge	May 2, 1871
	Staah, Peter, and Joseph O. Luther. (<i>See</i> Luther & Staah.)	
110,797	Staats, William H., assignor of one-half interest to Rufus Lape and Charles A. McLeod, Crescent, N. Y. Railway-rail chair	Jan. 3, 1871
112,747	Stackpole, Greenleaf, Elizabeth, N. J. Sewing-machine	Mar. 14, 1871
112,976	Same.....Whisk-broom	Mar. 21, 1871
4,729	Same.....same (Design)	Mar. 21, 1871
113,358	Same.....same	April 4, 1871
	Stacy, George, and Harley D. Cowles. (<i>See</i> Cowles & Stacy.)	
	Stacy, James E., and Morrill G. Phillips. (<i>See</i> McPherson, William H., assignor.)	
115,377	Stadchmann, Carl, Pittsburgh, Pa. Glass-mold	May 30, 1871
115,779	Stafford, Charles F., and Lemuel Stansberry, Evansville, Ind. Sewing-machine caster	June 6, 1871
	Stafford, Emmet, <i>et al.</i> (<i>See</i> Burgess, Clossen P., assignor.)	
	Stafford, John W., and William Cottingham. (<i>See</i> Cottingham & Stafford.)	
116,369	Stagg, David I., New York, N. Y. School-seat	June 27, 1871
	Stainfield, William, and James A. Bryan. (<i>See</i> Bryan & Stainfield.)	
113,700	Stallings, Reuben, Louisburgh, N. C. Cotton and hay press	April 11, 1871
115,780	Stallins, Noah H., Windsor, N. C. Washing-machine	June 6, 1871
	Stannum Brothers. (<i>See</i> Storle, Ole O., assignor.)	
111,397	Stamm, Frederick, East Lampeter, Pa. Bark-mill	Jan. 31, 1871
111,398	Stancliff, George, New York, N. Y. Boat-detaching apparatus	Jan. 31, 1871
	Same.....(<i>See</i> Green, Joseph, assignor.)	
	Standish, John M., <i>et al.</i> (<i>See</i> Barnard, John D., assignor.)	
	Standlick, William, <i>et al.</i> (<i>See</i> Colby, Calvin M., assignor.)	
120,601	Stanley, Abram R., and Edward Meloy. (<i>See</i> Meloy & Stanley.)	
111,486	Stanley, Daniel O., South Attleborough, Mass. Joint of breast-pins	Nov. 7, 1871
113,942	Stanley, Ira N., Brooklyn, N. Y. Manufacture of illuminating-gas	Jan. 31, 1871
115,378	Same.....Gas-condenser	April 18, 1871
	Stanley, James D., Baltimore, Md. Apparatus for extracting tar, &c., from pine wood	May 30, 1871
115,131	Stanley, Linnaeus H., and Gamaliel B. Draper, assignors through mesne assignments to selves, Nathaniel Faubrother, and George S. Fales, Attleborough, Mass. Machine for softening hides, leather, &c	May 23, 1871
	Stanley Rule and Level Company. (<i>See</i> Traut, Justus A., assignor.)	
	Stansberry, Lemuel, and Charles F. Stafford. (<i>See</i> Stafford & Stansberry.)	
	Stansbury, Joseph A., and Nathan Ball. (<i>See</i> Ball & Stansbury.)	
120,119	Stansel, George, Saint Johnsville, N. Y. Horseshoeing-rest	Oct. 17, 1871
113,218	Stanton, Bradley W., Alma, Mich. Wind-mill	Mar. 28, 1871
114,216	Stanton, John, Philadelphia, Pa. Low-water alarm	April 25, 1871
114,217	Stanton, Joseph, assignor through mesne assignments to John Kihlberg and Michael Mesmer, Buffalo, N. Y. Trunk-lock	April 25, 1871
114,485	Stanton, Joseph, assignor to self and Adolphus Hagelin, Buffalo, N. Y. Trunk	May 2, 1871
113,701	Stanton, Samuel, New York, N. Y. Variable eccentric for steam-engine governors	April 11, 1871
111,883	Staples, Edmund L., Chillicothe, Ohio. Corn-dropping attachment for hoes	Feb. 14, 1871
113,592	Staples, John H., assignor to John H. Ferguson and Samuel Clark, Wells, Me. Water-wheel	April 11, 1871
	Starbuck, Thomas. (<i>See</i> Boswell, Palmer & James, assignors.)	
120,340	Stark, Abraham H., and John C. Mitchell, Nevada, Iowa. Corn-planter	Oct. 24, 1871
	Stark, Albert, <i>et al.</i> (<i>See</i> Loomis, Winters & Stark.)	
	Stark, Lewis Henry, and Kendrick Kendal. (<i>See</i> Kendal & Stark.)	
121,212	Stark, William, White Pigeon, Mich., and Joseph G. Fisher and Simeon Fitch, Toledo, Ohio. Railway stock-car	Nov. 21, 1871
121,213	Same.....same	Nov. 21, 1871
121,214	Same.....Apparatus for feeding and watering stock on cars	Nov. 21, 1871
113,219	Stark, William, and Joseph G. Fisher, Toledo, Ohio. Grain-drier	Mar. 28, 1871
113,220	Same.....Heating-stove	Mar. 28, 1871
118,980	Starke, Friedrich, Dayton, Ohio. Carpenters' bench	Sept. 12, 1871
117,574	Starke, Patrick Henry, Richmond, Va. Plow	Aug. 1, 1871
	Starker, Amanda M. (<i>See</i> Little, Matthew, assignor.)	
118,066	Starkey, Orlando L., and Elisha W. Poston, assignors to Orlando L. Starkey, Fort Wayne, Ind. Paper-trimming machine	Aug. 15, 1871
5,194	Starr, Eli T., assignor to Samuel S. White, Philadelphia, Pa. Dentists' upper-impression tray (Design)	Aug. 8, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,292	Starr, Isaac, Wooster, Ohio. Horse-power.....	Aug. 22, 1871
111,487	Starr, Nicholas, Homer, N. Y. Umbrella.....	Jan. 31, 1871
	Starr, Thomas W. (See Waters, Frank, assignor).....(Design.)	
118,491	Starr, William M., Washington, D. C. Steam-engine.....	Aug. 22, 1871
120,341	Starr, William M., assignor of one-eighth interest to John A. Rollings and George W. Wright, and one-fourth interest to William Penn Clarke, Washington, D. C. Car brake and starter.....	Oct. 24, 1871
111,695	Starrett, Laroy S., Athol, Mass. Car-coupling.....	Feb. 7, 1871
112,646	Standt, Manassa, Summit Hill, Pa. Velocipede.....	Mar. 14, 1871
	Stansse, Valentine, <i>et al.</i> (See Nimmo, Archibald, assignor).....(Two cases.)	
114,619	Stead, Isaac, Philadelphia, Pa., Henry Holcroft, Media, Pa., and Francis R. Pearson, Germantown, Pa. Self-acting mule for spinning.....	May 9, 1871
	Stealey, Thomas I., Middlebourne, W. Va. Harvester.....(Extension)..	Dec. 15, 1871
115,379	Stearns, David E., assignor to self, Samuel M. Burr, and William D. Fowler, Berea, Ohio. Motive-power for sewing-machines.....	May 30, 1871
111,093	Stearns, Edward H., Erie, Pa. Edging-machine.....	Jan. 17, 1871
115,903	Same.....Saw-mill.....	June 13, 1871
117,828	Same.....Machine for turning logs.....	Aug. 8, 1871
4,551	Same.....Head-block for saw-mills.....(Reissue)..	Sept. 12, 1871
4,625	Same.....Head-block.....(Reissue)..	Nov. 7, 1871
121,299	Same.....Machine for handling logs in saw mills.....	Nov. 28, 1871
116,108	Stearns, John N., New York, N. Y. Bobbin.....	June 20, 1871
111,696	Stearns, Monroe J., Galesville, Wis. Bee-hive.....	Feb. 7, 1871
118,827	Stearns, Silas D., and George Ellsworth, Weston, Ohio. Bee-hive.....	Sept. 12, 1871
118,667	Stebbins, Carlos, Pike, N. Y. Sewing-machine.....	Aug. 15, 1871
117,608	Stebbins, Charles H., Circleville, Ohio. Steam-boiler flue-cleaner.....	July 11, 1871
	Stebbins, J. Monroe, and James McKenzie. (See McKenzie & Stebbins.)	
	Stebbins, John W. (See McMaster, Alonzo D., assignor.)	
	Stebbins, Samuel H., and Joseph L. Hannum. (See Hannum & Stebbins.)	
113,106	Stechschult, August, Glendorf, Ohio. Clothes-drier.....	Aug. 28, 1871
121,016	Steck, George, and Franklin Arnold, Hughesville, Pa. Pump.....	Nov. 14, 1871
116,109	Steck, George, New York, N. Y. Grand piano.....	June 20, 1871
117,695	Stedman, Edward E., Randolph, Ohio. Clothes-drier.....	Aug. 1, 1871
	Steed, Robert P. (See Earnest, William H., assignor.)	
	Steele & Johnson Button Company. (See Washbourne, Frank, assignor.)	
116,110	Steele, Albert J., Brooklyn, N. Y. Electro-magnetic medical-apparatus.....	June 20, 1871
114,873	Steele, Ben. H., Barnesville, Ohio. Churn.....	May 16, 1871
4,822	Steele, Elbridge J., assignor to Turner, Seymour & Judds, New Britain, Conn. Drawer-pull.....(Design)..	April 18, 1871
115,781	Same.....Fastening for window-shutters.....	June 6, 1871
5,274	Same.....Wolcottville, Conn. Plate of shutter and tassel hooks. (Design).....	Sept. 19, 1871
5,575	Same.....Caster-ring.....(Design)..	Sept. 19, 1871
117,009	Steele, Elijah F., Wallingford, Conn. Furnace-grate.....	July 11, 1871
114,986	Steen, Knud, Rochester, N. Y. Adjustable square.....	May 16, 1871
4,823	Steffe, Jacob, assignor to Orr, Painter & Co., Philadelphia, Pa. Cooking-stove. (Design).....	April 18, 1871
4,401	Steffe, William, assignor to self and Jesse Reynolds, Philadelphia, Pa. Radiator.....(Reissue)..	May 30, 1871
117,010	Steger, Joseph, New York, N. Y. Friction-pulley.....	July 11, 1871
113,593	Stein, Michael J., New York, N. Y. Sewing boots and shoes.....	April 11, 1871
5,363	Stein, Samuel, Rochester, N. Y. Burial-case.....(Design)..	Nov. 14, 1871
5,373	Steinmetz, Bernard, assignor to Raphael Neumann & Co., France. Lock-case for satchels, &c.....(Design)..	Dec. 12, 1871
115,782	Steinway, C. F. Theodore, New York, N. Y. Piano-action.....	June 6, 1871
118,402	Stelle, David D., New Brunswick, N. J. Rub-iron for vehicles.....	Aug. 22, 1871
	Stelson, Elias B., <i>et al.</i> (See Derby, John K., assignor.)	
117,011	Stengel, Jost, Croton, Mich., and Charles C. Davey, Big Prairie, Mich., assignors to Henry B. Hershberger and Charles C. Davey. Corn-husker.....	July 11, 1871
114,987	Stephens, D. H., Riverton, Conn. Rule-joint.....	May 16, 1871
118,293	Stephens, Ebenezer, Barnet, Brownville, Nebr. Wire-stretcher.....	Aug. 22, 1871
115,654	Stephens, George F., assignor to self and John Nation, Portland, Oreg. Buckle.....	June 6, 1871
118,165	Stephens, William, New Albany, Ind. Device for drawing iron from heating-furnaces.....	Aug. 15, 1871
118,166	Stephenson, George A., and Oliver L. Sutliff, Wooster, Ohio. Lightning-rod.....	Aug. 15, 1871
113,359	Stephenson, Hugh M., and John B. Tyer, Wabash, Ind. Mail-bag fastener.....	April 4, 1871
113,107	Stephenson, James M., Pendleton, Ind. Rock-drill.....	Mar. 28, 1871
120,792	Sterick, Charles W., assignor to William A. Middleton, Northumberland, Pa. Attachment for wash-boilers.....	Nov. 7, 1871
117,217	Sterick, Sylvanus T. F., Georgetown, D. C. Journal-box and axle-bearing.....	July 18, 1871
	Sterling, William H., and Samuel S. B. Lewis. (See Lewis & Sterling.)	
115,253	Sternberg, Adolf W. C., Davenport, Iowa. Bung-cutter.....	May 23, 1871
	Sternberg, A. Irving, <i>et al.</i> (See Shortt, Edward G., assignor).....(Two cases.)	
4,326	Sternberg, George Miller, New York, N. Y. Electro-magnetic regulator for temperature in rooms, &c.....(Reissue)..	April 4, 1871
119,541	Same.....Electro-magnetic valve.....	Oct. 3, 1871
119,542	Same.....Electro-magnetic thermometer.....	Oct. 3, 1871
119,543	Same.....Manufacture of electric thermometers.....	Oct. 3, 1871
112,087	Sternberg, Jay, Webster City, Iowa. Grain-cleaning machine.....	Feb. 21, 1871
	Sternberg, Wilhelm, <i>et al.</i> (See Heuermann, Sternberg & Stuhr.)	
12,977	Sternberg, William, Bridgeport, Conn. Cheese-hoop.....	Mar. 21, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,809	Sternberg, William, Bridgeport, Conn. Cheese-hoop	April 18, 1871
112,295	Sterne, Louis, England. Rubber-tire for steam-carriages	Feb. 28, 1871
113,943	Steschult, William, Glandorf, Ohio. Sawing-machine	April 18, 1871
	Stetefeldt, Charles A., <i>et al.</i> (See Riotte, Eugene N., assignor.)	
	Stetler, Henry Z. (See Bell, James A., assignor.)	
119,424	Stetson, Bradford, Uxbridge, Mass. Anti-friction bearing of water-wheels	Sept. 26, 1871
116,642	Stetson, George R., New Haven, Conn. Breech-loading fire-arms	July 4, 1871
120,403	Stetson, George R., assignor to the Winchester Repeating-Arms Company, New Haven, Conn. Metallic cartridge	Oct. 31, 1871
	Stetson, John A., jr., and John N. Valley. (See Valley & Stetson.)	
121,067	Stetson, Lewis Thayer, Randolph, Mass. Perch for fowls	Nov. 21, 1871
4,936	Stetson, Thomas D., assignor to Heath & Smith Manufacturing Company, New York, N. Y. Street-lamp	May 23, 1871
	(Design)	
115,539	Stevenbanks, Charles, and Joseph Quinn, Wilmington, Del. Adjustable car-seat	May 30, 1871
111,884	Stevens, Andrew J., San Francisco, Cal. Locomotive-boiler furnace	Feb. 14, 1871
114,061	Stevens, Augustus G., Manchester, N. H. Furniture-caster	April 25, 1871
114,218	Stevens, Benjamin D., assignor to self, Nathan A. Wright, and John Conant, Prairie du Chien, Wis. Rubber-veneer	April 25, 1871
	Stevens, Charles D., and Frank J. Claxton. (See Claxton & Stevens.)	
120,545	Stevens, Charles L., assignor to self and L. B. Flanders, Galesburgh, Ill. Hydro-pneumatic motor	Oct. 31, 1871
112,647	Stevens, Chase A., assignor to Abijah Richardson, New York, N. Y. Packing from asbestos and other fibrous minerals	Mar. 14, 1871
112,648	Same.....Fibrous mineral-packing for journals, bearings, &c	Mar. 14, 1871
112,649	Same.....Treating asbestos and other mineral fibers for useful purposes ..	Mar. 14, 1871
112,650	Same.....Treating asbestos and other fibrous minerals	Mar. 14, 1871
112,651	Stevens, Chase A., New York, N. Y., and Isaac Lindsley, Pawtucket, R. I., assignors through mesne assignments to Abijah Richardson. Machine for forming packing from asbestos and other fibrous materials	Mar. 14, 1871
118,295	Stevens, Chase A., and Cyrus Butler, New York, N. Y. Packing for machinery and lining for journal-boxes and bearing-surfaces	Aug. 22, 1871
	Stevens, Colin and George M., <i>et al.</i> (See Turner & Stevens.)	
111,488	Stevens, George, and Joshua Hendy, San Francisco, Cal. Electro-magnetic sewing-machine	Jan. 31, 1871
116,770	Stevens, George, and James W. Moyle, Cincinnati, Ohio. Electro-magnetic fan ..	July 4, 1871
4,562	Stevens, George D., New York, N. Y. Chain-hook	Jan. 3, 1871
111,489	Same.....Guard-chain for bracelets	Jan. 31, 1871
118,294	Same.....Neck-chain	Aug. 22, 1871
114,874	Stevens, Henry B., assignor to George L. Squier, Buffalo, N. Y. Horse-power ..	May 16, 1871
	Stevens, Lafayette, Elmira, N. Y. Boring-machine	Dec. 14, 1871
112,088	Stevens, Levi, Washington, D. C. Producing gas from solid carbon	Feb. 21, 1871
113,810	Stevens, Nathan Page, Hopkinton, N. H. Steam-engine valve	April 18, 1871
116,370	Same.....same	June 27, 1871
120,793	Stevens, Seth, North Fryeburgh, Maine. Corn-planter	Nov. 7, 1871
	Stevens, William H. (See Nash, Francis M., assignor.)	
121,821	Stevenson, Charles J., assignor to self and Martin H. Duckworth, Hazel Green, Wis. Core-retainer for tubular rock-drills	Dec. 12, 1871
118,068	Stevenson, George, Zionsville, Ind. Farmers' boiler	Aug. 15, 1871
110,691	Stevenson, Henry M., South Peacham, Vt. Clothes-drier	Jan. 3, 1871
	Stevenson, James R., <i>et al.</i> (See Burgess, Closson P., assignor.)	
	Stevenson, James R., and Closson P. Burgess. (See Burgess & Stevenson.)	
112,296	Stevenson, John H., Birmingham, Ohio. Saw-jointer for circular saws	Feb. 28, 1871
119,664	Stevenson, Stephen, Dansville, N. Y. Turbine water-wheel	Oct. 3, 1871
114,988	Stevenson, William, Neponset, Ill. Draught-equalizer	May 16, 1871
	Stewart, Alexander. (See Merrill, John F., assignor.)	
	Stewart, Benjamin F., and Marion H. Marmaduke. (See Marmaduke & Stewart.)	
115,904	Stewart, Charles E., Aspinwall, United States of Colombia. Throttle-valve gear	June 13, 1871
118,828	Stewart, Columbus L., Baltimore, Md. Door-lock	Sept. 12, 1871
113,108	Stewart, Edward, Fort Madison, Iowa. Automatic water-spout cut-off	Mar. 28, 1871
117,120	Same.....Card-holder	July 18, 1871
121,822	Stewart, Henry S., Yreka, Cal. Elevator	Dec. 12, 1871
	Stewart, James G., and Jacob Hill. (See Hill & Stewart.)	
113,811	Stewart, John L., and John P. Logan, Philadelphia, Pa. Petroleum-still	April 18, 1871
121,906	Stewart, Malcolm, Southfield, Mich. Potato-digger	Dec. 12, 1871
115,905	Stewart, Ninian, Detroit, Mich. Trunk. (Antedated June 2, 1871)	June 13, 1871
120,120	Stewart, Orlando, East Cambridge, Mass. Variable exhaust for locomotive-engines	Oct. 17, 1871
	Stewart, Samuel. (See Harris, William J., assignor.)	
112,508	Stewart, S. M., New Harrisburgh, Ohio. Plow	Mar. 7, 1871
121,680	Stewart, Thomas, Philadelphia, Pa. Lock	Dec. 5, 1871
116,111	Stewart, T. H., Winona, Miss. Washing-machine	June 20, 1871
116,881	Stibbs, Thomas, Wooster, Ohio. Flier for spinning, &c	July 11, 1871
117,218	Same.....Skein twisting machine	July 18, 1871
119,195	Same.....Press for pressing yarn, &c	Sept. 19, 1871
121,434	Stichter, Henry P., Pottsville, Pa. Combined potato-masher, steak-pounder, and ice-breaker	Nov. 28, 1871
	Stickler, Joseph W., <i>et al.</i> (See Smyth, David M., assignor)	(Two cases.)
	Stiffer, Albert G., and John W. Hull. (See Hull & Stiffer.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,748	Stigale, Elizabeth Mary, Philadelphia, Pa. Floral-bracket.....	Mar. 14, 1871
4,595	Stiles, David L., assignor through mesue assignments to John M. French, Rochester, N. Y. Heating-stove..... (Reissue)	Oct. 17, 1871
114,486	Stiles, Jacob M., and Ellwood Davis. (See Davis & Stiles.)	
	Stiles, William C., Nevada City, Cal. Ore-concentrator. (Antedated April 22, 1871)	May 2, 1871
122,075	Still, Andrew T., Baldwin City, Kans. Churn-dasher.....	Dec. 19, 1871
114,219	Still, John W., assignor to Franklin Pancoast, San Francisco, Cal. Fire-kindling	April 25, 1871
4,597	Stillman, William Warren, assignor to Ralph Emerson, Mount Hawley, Ill. Plow-colter.....	Oct. 17, 1871
116,882	Stillson, G. C., Derby, Conn. Ladies' elastic supporter.....	July 11, 1871
	Stilson, John F., et al. (See Babcock, Stilson & Leidy.)	
	Stilwell, Charles B., et al. (See Nicholson, Ezra, assignor.)	
115,132	Stilwell, John, Griffin, Ga. Hoe.....	May 23, 1871
115,133	Stilwell, Lewis E., Franklinville, N. Y. Wagon-tongue support.....	May 23, 1871
111,490	Stilwell, William W., Oxford, Wis. Churn.....	Jan. 31, 1871
	Stimpson, James, Baldwinsville, Mass. Method of joining boxes, &c. (Extension)	Feb. 2, 1871
	Stimson, Charles, et al. (See Colley, William H., assignor)..... (Reissue.)	
119,059	Stimson, Lucius S., deceased, by Harriet N. Stimson, administratrix, assignor of one-half interest to Nelson F. Libby, Lowell, Mass. Composition felting. (Antedated Sept. 16, 1871)	Sept. 19, 1871
	Stine, Simon J. (See Peters, Jacob, assignor.)	
	Same..... (See Rothe, Julius A., assignor.)	
115,906	Stine, William, Elmore, Ohio. Stove-pipe joint.....	June 13, 1871
113,360	Stine, William, assignor to self and Henry R. Lyle, Elmore, Ohio. Match-safe.....	April 4, 1871
114,723	Stinson, William Henry, Newbern, Iowa. Grain-registering device.....	May 9, 1871
116,236	Stites, John S., assignor to self and Abraham S. Stonebraker, Baltimore, Md. Propulsion of vessels.....	June 20, 1871
121,134	Stitzel, Frederick, Louisville, Ky. Device for filling barrels.....	Nov. 21, 1871
5,193	Stivers, Rufus M., New York, N. Y. Base of a carriage-body..... (Design)	Aug. 8, 1871
4,982	St. John, James A., Boston, Mass. Type..... (Design)	June 6, 1871
	St. John, J. C. (See Wheeldon, John, assignor.)	
112,978	St. John, Roswell H., Bellefontaine, Ohio. Hinge for sewing-machines.....	Mar. 21, 1871
119,665	Same..... same.....	Oct. 3, 1871
121,681	St. John, Roswell H., assignor to self, Jacob Pini, and John Marshall, Bellefontaine, Ohio. Flour-bolt.....	Dec. 5, 1871
113,463	St. John, William H., Brooklyn, N. Y., and Samuel O. Rockwell, Jersey City, N. J. Friction-condenser for illuminating-gas.....	April 4, 1871
	Stock, James C., and Nelson Warren. (See Warren & Stock.)	
115,655	Stock, John and Jacob, New York, N. Y. Photographic camera.....	June 6, 1871
116,771	Same..... Photographic apparatus.....	July 4, 1871
121,553	Same..... Photographic camera.....	Dec. 5, 1871
114,724	Stockbridge, Lyman R., assignor to self and William W. S. Orbeton, Haverhill, Mass. Balmoral or laced boot.....	May 9, 1871
121,554	Stockman, Percival T. G., Brooklyn, N. Y. Process of amalgamating gold and silver ores.....	Dec. 5, 1871
117,477	Stockton, Edward A., San Francisco, Cal. Machine for turning spiral moldings. Stockton, Samuel. (See Schepler, John, assignor.)	July 25, 1871
117,012	Stockton, Volney, Williamsburgh, Ohio. Knock-down chair.....	July 11, 1871
117,478	Stockwell, Emory, Stamford, Conn. Permutation-lock.....	July 25, 1871
116,371	Stockwell, John W., Portland, Maine. Drain-pipe machine.....	June 27, 1871
116,643	Same..... same.....	July 4, 1871
121,682	Stoen, Hector M., Painted Post, N. Y. Nail-hammer.....	Dec. 5, 1871
110,876	Stoddard, Joshua C., Worcester, Mass. Horse-hay rake.....	Jan. 10, 1871
119,480	Stoier, William B., Memphis, Tenn. Gas-burner.....	Oct. 3, 1871
116,508	Stokes, Joseph F., Philadelphia, Pa. Car-starter.....	June 27, 1871
113,109	Stoll, Michael, assignor to self and Jacob G. Peters, Conestoga Township, Pa. Cultivator.....	Mar. 28, 1871
	Stolle, James W., et al. (See Gillham, Taylor & Stolle.)	
	Stone, Albern, et al. (See Deitz, Wayne & Stone.)	
120,218	Stone, George F., Baltimore, Md. Fountain for wash-boilers.....	Oct. 24, 1871
	Stone, G. H., et al. (See Snider, Samuel, assignor.)	
5,402	Stone, James Edward, assignor to Arnold, Constable & Co., England. Carpet-pattern..... (Design)	Dec. 5, 1871
121,435	Stone, John H., assignor to self and J. M. Williams, Hamilton, Canada. Machine for making sheet-metal screw-neck and screw-cap for cans.....	Nov. 28, 1871
111,988	Stone, Joseph M., North Andover, Mass. Construction of cylinders for carding and other machines.....	Feb. 21, 1871
	Stone, Joseph M., and Joseph H., et al. (See Ashworth, John, assignor.)	
	Stone, Joseph M. and Joseph H., et al. (See McGovern, Peter, assignor.)	
121,907	Stone, Joseph M., assignor to self, George L. Davis, John A. Wiley, George G. Davis, Joseph H. Stone, and James H. Davis, North Andover, Mass. Loom shuttle-box mechanism.....	Dec. 12, 1871
116,112	Stone, Livingston, Charlestown, N. H. Fish-hatching apparatus.....	June 20, 1871
	Stone, Mark B., and Benjamin F. Fisk. (See Fisk & Stone.)	
112,979	Stone, Nathaniel F., deceased, by Amanda Stone and Benjamin Holbrook, administrators, Chicago, Ill. Saw-gummer. (Antedated March 1, 1871.)	Mar. 21, 1871
114,620	Stone, Samuel, assignor to self and Frederick S. Hunt, Lynn, Mass. Shank-marking tool.....	May 9, 1871
120,342	Stone, Thomas, Carbondale, Ill. Water-grate for steam-boilers.....	Oct. 24, 1871

Alphabetical list of patentees for the year 1871--Continued.

No.	Name, residence, and invention or discovery.	Date.
114,220	Stone, Warren H., Lebanon, N. H. Plow-coltér	April 25, 1871
111,583	Stone, William C., assignor to self and William S. Foster, Derby Line, Vt. Tanning	Feb. 7, 1871
116,883	Stone, William H., assignor to self and Newton J. Smith, Pattonsburgh, Mo. Well-auger	July 11, 1871
	Stonebraker, Abraham S. (See Stites, John S., assignor.)	
113,812	Stoney, Edmund, Walkerton, Canada. Chair and cradle combined	April 18, 1871
114,621	Stoops, Nesbitt D., Philadelphia, Pa. Treadle-bearing and oil-shield	May 9, 1871
	Storer, Ebenezer W., and George W. Tinsley. (See Tinsley & Storer.)	
	Storer, Jacob J., and James D. Whelpley. (See Whelpley & Storer.) (Five cases.)	
111,697	Storer, Joseph, England. Fountain	Feb. 7, 1871
113,813	Storle, Ole O., North Cape, Wis. Horse hay-rake. (Antedated April 1, 1871)	April 18, 1871
114,437	Storle, Ole O., assignor to self and Stamm Brothers, North Cape, Wis. Snap-hook	May 2, 1871
121,683	Storm, George, assignor to Straiton & Storm, New York, N. Y. Unwinder for book-tobacco	Dec. 5, 1871
120,681	Storm, William Mont, New York, N. Y. Combined steam and air engine. (Antedated Oct. 21, 1871)	Nov. 7, 1871
122,137	Same..... Machine for plaiting cloth	Dec. 26, 1871
	Stormont, William. (See Cracraft, Zadok S., assignor.)	
115,907	Story, John Thomas, Magnolia, Ark. Plow	June 13, 1871
115,380	Story, Joseph M., Cincinnati, Ohio. Driving paddle-wheels	May 30, 1871
122,076	Story, William H., Flatbush, N. Y. Mold for sewer-pipe	Dec. 19, 1871
119,797	Stott, John, Burlington, Iowa. Rotary engine	Oct. 10, 1871
	Stout, Byron G., et al. (See Sebring, Thompson C., assignor.)	
	Stout, George W., and Augustus Pelisse. (See Pelisse & Stout.)	
113,361	Stout, Stephen, Tremont, Ill. Churn-dasher	April 4, 1871
111,399	Stoutenborough, William T., Brooklyn, N. Y. Holder for plates while being warmed	Jan. 31, 1871
115,990	Same..... Ash-sifter	June 13, 1871
117,479	Stover, Benjamin F., Ladoga, Ind., and Isaac W. Warner, Crawfordsville, Ind. Churn-dasher	July 25, 1871
121,971	Stover, Joseph W., Boston, Mass., and Moses G. Crane, Newton, Mass. Protective electric telegraph	Dec. 19, 1871
114,364	Stow, Henry W., New Haven, Conn. Carriage-hub	May 2, 1871
114,062	Stow, John N., and Robert Loop, Camden, Ohio. Animal-trap	April 25, 1871
113,702	Stow, John W., San Francisco, Cal. Manufacture of pneumatic gas for illuminating, &c	April 11, 1871
	Stow, Joseph Wesley. (See Bell, Alexander D., assignor.)	
	Same..... (See Bloomfield, Homer, assignor.)	
113,944	Stow, Orson W., Plantsville, Conn. Seaming-machine	April 18, 1871
	Stow, Orson W., Plantsville, Conn., and Augustus Barnes, Southington, Conn. Candle-snuffers. (Extension)	Nov. 8, 1871
	Stowe, Jasper. (See Martin, Milo, assignor.)	
113,221	Stowell, Barna T., Quincy, Ill. Excavator	Mar. 28, 1871
111,989	Stowell, William J., Baltimore, Md. Cradle for children. (Antedated Feb. 20, 1871)	Feb. 21, 1871
120,343	Strack, Samuel, Dover Township, Pa. Railway cattle-guard	Oct. 24, 1871
121,135	Straffin, Charles H., Boston, Mass. Clothes-line reel	Nov. 21, 1871
112,980	Strain, Edwin, Newton, Mass. Needle for sewing-machines	Mar. 21, 1871
5,325	Strain, John G., Delaware, Ohio. Chair	Oct. 24, 1871
113,594	Strain, Joseph, Ardenesia, Canada. Spinning-wheel	April 11, 1871
121,068	Strain, Robert R., San Francisco, Cal. Earth-closet	Nov. 21, 1871
114,622	Straif, Homer, Cincinnati, Ohio. Railway-switch	May 9, 1871
	Straiton & Storm. (See Storm, George, assignor)	
117,345	Strange, Edward M., New York, N. Y. Ship-building	July 25, 1871
116,113	Strange, Joseph W., Bangor, Maine. Tension-mechanism for sewing-machine shuttles	June 20, 1871
119,425	Same..... Steering apparatus	Sept. 26, 1871
114,875	Strattner, Frederick, Wilmington, Del. Shutter-worker	May 16, 1871
4,365	Stratton, Edwin A. and Charles M., Greenfield, Mass. Metal corner-piece for protecting the corners of wooden bodies. (Reissue)	May 2, 1871
120,910	Stratton, James, New Haven, Conn. Pipe-tongs	Nov. 14, 1871
116,114	Straub, Leo C., Pittsburgh, Pa. Can filling and soldering apparatus	June 20, 1871
117,121	Same..... Fruit-jar	July 18, 1871
114,488	Straus, Jacob, Saint Louis county, Mo. Mold for saddle-trees	May 2, 1871
121,215	Same..... Saint Louis, Mo. Composition saddlery-goods	Nov. 21, 1871
	Strauss, Philip, and Ernest Greenfield. (See Duff, Robert, assignor.) (Two cases.)	
	Same..... (See Oehl, Charles A., assignor.)	
115,783	Strear, Alexander, Harrodsburgh, Ind. Hay-gatherer	June 6, 1871
4,340	Street, John W., Marshalltown, Iowa. Cattle-car. (Reissue)	April 11, 1871
120,121	Street, William, New York, N. Y. Privy-seat cover	Oct. 17, 1871
114,725	Strehli, Joseph H., Cincinnati, Ohio. Stop-valve	May 9, 1871
	Streit, Josiah, and John Williamson James. (See James & Streit.)	
113,110	Stribling, Uriah B., Madison, Ind. Boiler-furnace	Mar. 28, 1871
	Strickland, Thomas, et al. (See While, Lewis, Strickland & Caddick.)	
	Strock, Solomon, and Newton C. Freck. (See Freck & Strock.)	
111,271	Strong, Clark, Winsted, Conn. Burial-casket handle	Jan. 24, 1871
	Strong, Francis M., and Thomas Ross, Vergennes, Vt. Platform-scale. (Disclaimer filed)	Jan. 10, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Strong, Francis M., and Thomas Ross, Vergennes, Vt. Platform-scale. (Extension).....	Jan. 20, 1871
	Strong, John L., and Henry Buttenberg. (<i>See Buttenberg & Strong.</i>)	
	Strong, Myron H. (<i>See Maxim, Hiram S., assignor.</i>)	
112,931	Strong, Myron H., and William I. Reid, Brooklyn, N. Y. Hydrocarbon-gas apparatus.....	Mar. 21, 1871
117,013	Stroock, Samuel, New York, N. Y. Ice-bag.....	July 11, 1871
117,939	Same.....Packing for doors and windows.....	Aug. 8, 1871
118,887	Same.....Milk-can.....	Sept. 12, 1871
120,835	Strope, Dennis B., Fort Wayne, Ind. Cone for locomotive smoke-stacks.....	Nov. 14, 1871
117,014	Stropes, Jeremiah L., Bloomfield, Ind. End-gate for wagons.....	July 11, 1871
4,631	Same.....same.....(Reissue).....	Nov. 7, 1871
114,221	Stroud, Archibald L. W., Munford, Ala. Plow. (Antedated April 19, 1871).....	April 25, 1871
112,862	Stroud, William D., Oshkosh, Wis. Cultivator.....	Mar. 21, 1871
119,285	Same.....Combined seeder and cultivator.....	Sept. 26, 1871
120,546	Strowger, Charles H., Webster, N. Y. Fence.....	Oct. 31, 1871
120,344	Stuart, Charles Richard, Winslow, Me. Single-harness. (Antedated Oct. 21, 1871).....	Oct. 24, 1871
111,698	Stuart, David, Philadelphia, Pa. Cooking stove.....	Feb. 7, 1871
119,666	Same.....Kettle.....	Oct. 3, 1871
112,089	Stuart, David, assignor to Stuart, Peterson & Co., Philadelphia, Pa. Attachment for ranges and stoves.....	Feb. 21, 1871
4,387	Stuart, David, and Lewis Bridge, assignors to David Stuart and Richard Peterson, Philadelphia, Pa. Base-burning fire-place heater.....(Reissue).....	May 16, 1871
115,540	Stuart, David, and Lewis Bridge, assignors to Stuart, Peterson & Co., Philadelphia, Pa. Stove-leg.....	May 30, 1871
	Stuart, David, and Richard Peterson. (<i>See Bridge, Lewis, assignor.</i>)	
112,090	Stuart, Ezra H. and Walter A., Cedarville, N. Y. Cheese-vat.....	Feb. 21, 1871
4,416	Same.....same.....(Reissue).....	June 6, 1871
	Stuart, Henri L. (<i>See Bassett, John A., assignor.</i>)	
113,362	Stuart, Leverett W., Narrowsburgh, N. Y. Hoisting-apparatus. (Antedated March 23, 1871).....	April 4, 1871
	Stuart, Nathaniel, <i>et al.</i> (<i>See Smith, John Crawford, assignor.</i>)	
117,219	Stuart, Robert J., Yonkers, N. Y. Printing-press.....	July 18, 1871
112,091	Stuart, William G., Chicopee, Mass. Liquid-meter.....	Feb. 21, 1871
118,296	Stuart, William M., assignor to self and Alexander Chisholm, Port Huron, Mich. Composition for roofing, paving, &c.....	Aug. 22, 1871
110,798	Stubbs, Robert S., Lisbon, N. H. Envelope.....	Jan. 3, 1871
111,272	Stuckey, Henry, assignor to A. C. Shock, Bucyrus, Ohio. Harvester.....	Jan. 24, 1871
119,667	Stuckwisch, Rudolf, Terre Haute, Ind. Brick-mold.....	Oct. 3, 1871
	Studebaker Brothers Manufacturing Company. (<i>See Gilman, James R., assignor.</i>)	
	Stuhr, John, <i>et al.</i> (<i>See Henermann, Sternberg & Stuhr.</i>)	
116,772	Stukenborg, Benjamin J., Cincinnati, Ohio. Machine for distributing pitch in barrels and casks.....	July 4, 1871
112,191	Stull, Clement S., Poolesville, Md. Corn-harvester.....	Feb. 28, 1871
118,167	Sturgeon, Eli, Columbiana, Ohio. Safety-bridge for railroad-cars.....	Aug. 15, 1871
	Sturgeon, William. (<i>See Connel, James M., assignor.</i>)	
	Sturges, Frank, & Co. (<i>See Mather, Emmett, assignor.</i>)	
	Same.....(<i>See Gunn, Schuyler E., assignor.</i>)	
114,063	Sturges, James D., Chicago, Ill. Apparatus for cooling and mixing soap.....	April 25, 1871
111,153	Sturgis, Albert H., assignor to self and Joseph A. Pierce, Lewiston, Me. Sizing-machine.....	Jan. 24, 1871
113,111	Sturgis, Columbus F., Buena Vista, Ala. Sheet-metal fruit-can.....	Mar. 28, 1871
	Sturgis, James S., <i>et al.</i> (<i>See Pickles, John, assignor.</i>)	
114,623	Stutzman, Alexander, Somerset, Pa. Snow-plow.....	May 9, 1871
120,122	Subers, Joseph H., and James H. Tronp, Philadelphia, Pa. Broom-bridle.....	Oct. 17, 1871
5,304	Suedekum, Charles, Newport, Ky. Hinge.....(Design).....	Oct. 3, 1871
120,123	Sullenberger, William H., assignor of one-half interest to John Kerper, Harrisburgh, Pa. Saw-frame.....	Oct. 17, 1871
117,940	Sullivan, Alfred T., San José, Cal. Washing-machine.....	Aug. 8, 1871
111,699	Sullivan, Cornelius, Boston, Mass. Combined removable cock and fixed socket.....	Feb. 7, 1871
114,222	Sullivan, Daniel, Bangor, Me. Boiler.....	April 25, 1871
114,876	Same.....Steam-boiler.....	May 16, 1871
117,480	Same.....Hand-hole stopper for steam-boilers.....	July 25, 1871
119,248	Sullivan, Edward, Mount Washington, Pa. Piston-packing.....	Sept. 26, 1871
119,247	Sullivan, Edward, assignor to self and John S. McMillin, Mount Washington, Pa. Piston and piston-packing.....	Sept. 26, 1871
121,684	Sullivan, John, Thornton, Canada. Device for administering pills.....	Dec. 5, 1871
120,547	Sullivan, John R., Woodland, Cal. Adjustable-rail joint.....	Oct. 31, 1871
	Sullivan Machine Company. (<i>See Bail, Albert, assignor.</i>)	
121,216	Sulouff, David P., Milton, Pa. Clothes-washer.....	Nov. 21, 1871
121,217	Same.....same.....	Nov. 21, 1871
122,077	Same.....Wash-boiler.....	Dec. 19, 1871
116,773	Summer, Metcalf B., Boston, Mass. Humming-toy.....	July 4, 1871
112,982	Summeril, Thomas L., Juda, Wis. Fire-escape.....	Mar. 21, 1871
119,668	Summers, Martin, and Samuel B. Lane, Zionsville, Ind. Grain-binder.....	Oct. 3, 1871
118,560	Sumner, Edward R., Freeport, Ill. Post-hole digger.....	Aug. 29, 1871
115,656	Suplee, Hannah G., and John H. Mooney, San Francisco, Cal. Sewing-machine.....	June 6, 1871
122,138	Suppemis, Antonio, Millburn, N. J. Musical cage for animals.....	Dec. 26, 1871
112,394	Sursa, James W., San Leandro, Cal. Gang-plow.....	Mar. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,814	Sutherland, James, East Hampton, Mass. Self-acting mule for spinning	April 18, 1871
114,877	Sutherland, John B., Detroit, Mich. Railway axle-box	May 16, 1871
	Sutliff, Frederick. (<i>See</i> Smith, Henry, assignor.)	
	Sutliff, Oliver L., and George A. Stephenson. (<i>See</i> Stephenson & Sutliff.)	
120,009	Sutphen, Richard, Freehold, N. J. Wood-preserving composition	Oct. 17, 1871
119,896	Sutton, Deloy F., and Bernard Meilink; said Sutton assignor to N. Waterman, Toledo, Ohio. Tongueing and grooving machine	Oct. 10, 1871
119,060	Swain, James M., Peekskill, N. Y. Folding-seat	Sept. 19, 1871
	Swallow, Freeman M., and Charles A. Cummings. (<i>See</i> Cummings & Swallow.)	
	Swan & Clark. (<i>See</i> Hall & Garrison, assignors)	(Two cases.)
120,682	Swan, Amos L., Cherry Valley, N. Y. Bell-pull	Nov. 7, 1871
122,300	Same. House-bell	Dec. 26, 1871
4,606	Swan, Baxter C., Philadelphia, Pa. Box for the tops of bureaus. (Design) ..	Jan. 24, 1871
4,607	Same. same. (Design) ..	Jan. 24, 1871
4,608	Same. same. (Design) ..	Jan. 24, 1871
4,609	Same. same. (Design) ..	Jan. 24, 1871
112,509	Swan, George E., Mount Vernon, Ohio. Medical compound for treating fever and ague	Mar. 7, 1871
111,011	Swan, Horace, Woodstock, Vt. Clothes-drier	Jan. 17, 1871
115,541	Swan, James, Seymour, Conn. Anger	May 30, 1871
116,509	Same. Machine for forming lips of auger-bits	June 27, 1871
4,516	Same. Machine for manufacturing auger-bits. (Reissue) ..	Aug. 15, 1871
4,517	Same. Machine for bending the lips of auger-bits	Aug. 15, 1871
119,096	Same. Hollow auger	Sept. 19, 1871
4,569	Same. Machinery for forming the lips of augers. (Reissue) ..	Sept. 26, 1871
	Same. (<i>See</i> Cleveland, William, assignor.)	
	Swan, Samuel, and Benjamin R. Hamilton. (<i>See</i> Hamilton & Swan.)	
118,981	Swann, John S., Kanawha County, W. Va. Stump-extractor	Sept. 12, 1871
118,982	Same. Motive-power	Sept. 12, 1871
116,884	Swasey, Isaac N., Yonkers, N. Y. Memorandum-book	July 11, 1871
117,346	Swartwout, Edward D., Chicago, Ill. Automatic fan	July 25, 1871
113,595	Swartwout, Lee T., Locke, N. Y. King-bolt for wagons	April 11, 1871
111,273	Swartz, David H., Lancaster, Ohio. Bee-hive	Jan. 24, 1871
4,336	Swearingen, Lee, assignor to the National Cattle-Car Company, Grafton, W. Va. Stock-car	April 11, 1871
111,012	Sweatt, Charles L., and George A. Huntton, Fishersville, N. H. Custard and cake baker	Jan. 17, 1871
117,575	Sweatt, Leroy A., San Francisco, Cal. Tool for rounding leather	Aug. 1, 1871
4,983	Sweeney, Michael, Martinsville, Ohio. Lamp-chimney. (Design) ..	June 6, 1871
	Sweeny, McCluney & Co. (<i>See</i> Miller, John E., assignor)	(Design.)
112,192	Sweeny, Peter, New York, N. Y. Tnyere	Feb. 28, 1871
113,464	Sweet, Alonzo L., Norwich, Conn. Cutter-head	April 4, 1871
111,094	Sweet, Asel, assignor of one-half interest to George W. Chrisholm, Westfield, Pa. Extension-scaffold	Jan. 17, 1871
119,426	Sweet, Charles A., Ripon, Wis. Composition for removing scales from steam-boilers	Sept. 26, 1871
119,669	Sweet, George, Dansville, N. Y. Horse hay-rake	Oct. 3, 1871
121,261	Sweet, John Edson, Syracuse, N. Y. Manufacture of guards for harvesting-machines	Nov. 28, 1871
119,427	Sweet, John F., Cedar Rapids, Iowa. Balanced valve for steam-engines	Sept. 26, 1871
114,989	Sweet, Zara T., Tiskilwa, Ill. Pump. (Antedated May 12, 1871)	May 16, 1871
	Sweeting, J. K. P., et al. (<i>See</i> Lawrence, William H. assignor.)	
115,908	Sweetland, Alvah, Syracuse, N. Y. Hame-fastener	June 13, 1871
116,774	Sweetland, Anthony B., assignor to self and James Daley, Fitchburgh, Mass. Railroad-car ventilator	July 4, 1871
113,703	Sweetland, Jerome B., Pontiac, Mich. Sawing-machine	April 11, 1871
118,403	Same. Device for gumming and sharpening saws	Aug. 22, 1871
	Sweetland, S. H. (<i>See</i> Hoffman, Joseph, assignor.)	
111,013	Sweett, James H., Pittsburgh, Pa. Machine for making spikes	Jan. 17, 1871
	Sweett, Quimby & Perry. (<i>See</i> Goodfellow, John H. assignor.)	
120,010	Sweett, William E., San Francisco, Cal. Sash-tightener	Oct. 17, 1871
115,381	Swift, Henry D. and Daniel W., Worcester, Mass. Envelope-machine	May 30, 1871
115,382	Swift, Henry D. and Daniel W., assignors to selves and G. Henry Whitcomb & Co., Worcester, Mass. Envelope-machine	May 30, 1871
116,115	Swift, Joshua E., New York, N. Y. Sad and fluting iron	June 20, 1871
116,116	Swift, N. G., Hart's Village, N. Y. Machine for sowing pulverulent manure	June 20, 1871
117,941	Swift, Orrin W., New Haven, Conn. Railroad-car ventilator	Aug. 8, 1871
118,297	Switzer, John, Lynn, Mass. Anti-friction bearing for shafts	Aug. 22, 1871
119,798	Switzer, John J., assignor to self, Edwin H. Fitts, Willard Comey, and Edward B. Pendleton, Boston, Mass. Weft-stop mechanism for looms. (Antedated Sept. 25, 1871)	Oct. 10, 1871
110,799	Swope, Zuriel, Lancaster, Pa. Mowing-machine	Jan. 3, 1871
115,383	Sylla, Philo, deceased, by Lavinia and William F. Sylla, administrators, Elgin, Ill. Joint for desks or seats	May 30, 1871
110,800	Sylvester, George, Belleville, N. J. Apparatus and process of cleaning cotton-waste, &c	Jan. 3, 1871
114,878	Symonds, Thomas, Portland, Me. Excavator	May 16, 1871
111,787	Symonds, Thomas, assignor to John B. Curtis, Portland, Me. Excavator	Feb. 14, 1871
119,799	Sypes, John, Fairbury, Ill. Mode of dumping grain	Oct. 10, 1871
111,400	Taber, Freeman Augustus, assignor to Thomas S. Williams and Philip S. Page, New Bedford, Mass. Lamp-burner	Jan. 31, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,990	Taber, John, Wolfborough, N. H. Washing and wringing machine	May 16, 1871
116,644	Taber, M. Frank, Salem, Ohio. Door and gate spring	July 4, 1871
120,124	Tackmann, Otto, Yonkers, N. Y. Thill-coupling	Oct. 17, 1871
114,879	Taft, Charles G., jr., Norton, Mass. Hand-stamp	May 16, 1871
113,815	Taft, George C., Worcester, Mass. Drilling-machine	April 18, 1871
115,384	Same..... Emery polishing-stick	May 30, 1871
111,700	Taft, George C., assignor to self and Augustus Ball Davis, Worcester, Mass. Sand and emery paper	Feb. 7, 1871
121,685	Taft, George C., assignor to John H. Coes, Worcester, Mass. Wrench	Dec. 5, 1871
122,139	Same..... same	Dec. 26, 1871
114,064	Taft, Gustavus E., assignor to Whitin Machine Works, Stockbridge, Mass. Drawing-frame	April 25, 1871
122,291	Taft, Horatio N., Sag Harbor, N. Y. Filter	Dec. 26, 1871
110,801	Taft, James M., Arcadia, Wis. Meat-chopper and vegetable-slicer	Jan. 3, 1871
4,864	Taft, Royal C., William B. Weeden, and James W. Taft, Providence, R. I. Woven cloth	May 2, 1871
4,626	Taggart, Samuel, Indianapolis, Ind. Flour-packer	Nov. 7, 1871
111,885	Tagliabue, Giuseppe, New York, N. Y. Apparatus for ascertaining the proof-spirits in fermented mash	Feb. 14, 1871
120,011	Tait, Alexander, Sonora, Cal. Sad-iron handle	Oct. 17, 1871
115,784	Tait, Augustus Henry, Jersey City, N. J. Preserving wood	June 6, 1871
4,366	Tait, Augustus H., and Joseph W. Avis, assignors through mesne assignments to Charles Pratt, New York, N. Y. Apparatus and process of distilling petroleum and other oils	May 2, 1871
4,367	Same..... Apparatus for distilling petroleum and other hydrocarbons. (Reissue)	May 2, 1871
117,481	Tait, Augustus H., and Edward G. Kelley. (See Kelley & Tait)	July 25, 1871
5,144	Talbot, Nathaniel H., North Easton, Mass. Blacking-box holder	July 25, 1871
121,017	Talbott, Allan, Richmond, Va. Thimbles for making attachments to steam-boilers	Nov. 14, 1871
110,802	Talbott, Ezra W., assignor to self and James W. Miller, Napoleon, Ohio. Clothes-line holder	Jan. 3, 1871
117,347	Talcott, Samuel C., Ashtabula, Ohio. Buckle and loop	July 25, 1871
121,018	Tallant, Julius F., Burlington, Iowa. Rotary steam-valve	Nov. 14, 1871
114,365	Tallmadge, John W., Plainville, Conn. Scaffold-bracket for roofing. (Ante-dated April 22, 1871)	May 2, 1871
118,653	Tallman, William H., Amsterdam, N. Y. Soldering-lamp. (Antedated Aug. 18, 1871)	Aug. 29, 1871
116,885	Tally, Felix W., and Michael Ryan, Philadelphia, Pa. Shearing-machine	July 11, 1871
110,939	Tambling, William H., Eleroy, Ill. Curtain-fixture	Jan. 10, 1871
117,482	Tanner, F. G., et al. (See Poitras, Zephire, assignor.)	July 25, 1871
111,886	Tanner, George W., Providence, R. I. Cigar-machine	Feb. 14, 1871
111,274	Tapley, Heel-Burnisher Machine Company. (See Spear, Vivian K., assignor.)	Jan. 24, 1871
119,061	Tapley, Jesse F., Springfield, Mass. Paper-file	Sept. 19, 1871
4,402	Taplin, Alvin, assignor to Bristol Brass and Clock Company, Forestville, Conn. Lamp-burner	Oct. 17, 1871
112,092	Same..... same	Oct. 31, 1871
4,598	Tappey, Lumsden & Co. (See Beasley, Charles J., assignor.)	May 30, 1871
4,599	Tarbox, Eugene L., New York, N. Y. Stencil-plate	Feb. 21, 1871
120,467	Tarbox, Levi B., Colliersville, N. Y. Meat-tenderer. (Antedated Feb. 16, 1871)	Oct. 17, 1871
111,014	Tarr, F., jr., et al. (See Manning, John J., assignor.)	Oct. 17, 1871
111,015	Tarr, James G., and Augustus H. Wonson, Gloucester, Mass. Paint for ships' bottoms	Oct. 17, 1871
111,016	Same..... Paint for ships' bottoms	Oct. 17, 1871
111,017	Tarr, John Blake, Fair Haven, Mass. Pressing cast-metal	Oct. 31, 1871
118,404	Tarrant, Esau, and Alexander Rodgers. (See Rodgers & Tarrant.)	Jan. 17, 1871
120,543	Tash, William, et al. (See Hedrick, Tash & Kreidler.)	Jan. 17, 1871
113,704	Tasker, Stephen P. M., Philadelphia, Pa. Machine for slitting, beveling, and bending metal-tube skelps	Jan. 17, 1871
120,683	Same..... Machine for slitting, beveling, and bending metal-tube skelps	Jan. 17, 1871
4,417	Same..... Machine for slitting and bending metal-tube skelps	Jan. 17, 1871
120,794	Same..... Machine for bending metal-tube skelps	Jan. 17, 1871
121,218	Same..... (See Wendell, Isaac P., assignor.)	Aug. 22, 1871
117,942	Same..... (See Devlan, Patrick S., assignor.)	Oct. 31, 1871
115,335	Tate, William John, Philadelphia, Pa. Quilting-machine	April 11, 1871
115,336	Same..... Hydraulic engine	Nov. 7, 1871
115,829	Tate, William John, assignor to William A. Drown & Co., Philadelphia, Pa. Sewing-machine for umbrellas and parasols	Nov. 7, 1871
115,829	Tatem, Benjamin F., Memphis, Tenn. Game and rat trap	Aug. 8, 1871
115,829	Tatem, Benjamin F., et al. (See Finley, Hurd & Tatem.)	May 30, 1871
115,829	Tatom, Abel F., and Simon I. S. Cawthon. (See Cawthon & Tatom.)	May 30, 1871
115,829	Tatro, Joseph A., Hartford, Conn. Process of treating petroleum and its products	Sept. 12, 1871
120,794	Taylor, Alexander C., North Fairfield, Ohio. Cultivator	Nov. 7, 1871
121,218	Taylor, Alfred, Brooklyn, N. Y. Alarm for letter-boxes	Nov. 21, 1871
117,942	Taylor, Asher S., San Francisco, Cal. Medicinal beverage	Aug. 8, 1871
115,335	Taylor, Augustus E., New Britain, Conn. Lantern	May 30, 1871
115,336	Taylor, Benjamin W., Henderson, Ky. Life-preserver	May 30, 1871
115,829	Taylor, Carlo R., Ionia, Mich. Bundling-press	Sept. 12, 1871
115,829	Taylor, Cebra L., and George C. Setchell. (See Setchell & Taylor.)	Sept. 12, 1871
115,829	Taylor, Charles, et al. (See Breinig, David E., assignor)	Sept. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Taylor, Day & Co. (<i>See Prushaw, Thomas Henry, assignor.</i>)	
121,626	Taylor, Edward L., Jersey City Heights, N. J. Sounding-board for pianos.....	Dec. 5, 1871
118,069	Taylor, Esau D., assignor to firm of John Matthews, Hornellsville, N. Y. Machine for bottling gas-charged liquids.....	Aug. 15, 1871
117,576	Taylor, Francis Daniel, Brady's Bend Township, Pa. Manufacture of iron. (Antedated July 21, 1871).....	Aug. 1, 1871
120,836	Taylor, Franklin, Indianapolis, Ind. Ditching-machine. (Antedated Oct. 28, 1871).....	Nov. 14, 1871
114,223	Taylor, Franklin R., Waverly, N. Y. Hair-dressing.....	April 25, 1871
121,136	Taylor, George C., and John B. Crisman, Port Jervis, N. Y. Combined washer and boiler.....	Nov. 21, 1871
114,224	Taylor, George W., Baltimore, Md. Ash-sifter.....	April 25, 1871
121,908	Taylor, Gilbert F., New York, N. Y. Ironing-machine.....	Dec. 12, 1871
120,125	Taylor, Jackson T., Newnan, Ga. Alarm-lock.....	Oct. 17, 1871
117,577	Taylor, Jacob, Petroleum Centre, Pa. Can for nitro-glycerine.....	Aug. 1, 1871
117,122	Taylor, James, Luzerne, N. Y. Wood-pulp machine.....	July 18, 1871
116,775	Taylor, James Patton, assignor to self and Nathaniel G. Taylor, Elizabethton, Tenn. Repeating-ordnance.....	July 4, 1871
112,297	Taylor, John, Philadelphia, Pa. Washing-machine.....	Feb. 28, 1871
5,283	Same.....Knitted nubia-fabric.....(Design).....	Sept. 26, 1871
112,298	Taylor, John F., Charleston, S. C. Steam and hydraulic press.....	Feb. 28, 1871
119,428	Same.....Feed-water heater for steam-boilers.....	Sept. 26, 1871
112,652	Taylor, Leonard S., Sigel, Mo. Stirrup for riding-saddles.....	Mar. 14, 1871
112,863	Same.....Dampener.....	Mar. 21, 1871
117,943	Taylor, Luke W., Upper Falls, Vt. Mop-head.....	Aug. 8, 1871
113,363	Taylor, Luman D., Granville Centre, Pa. Hay-loader.....	April 4, 1871
117,015	Taylor, Martin, Buffalo, N. Y. Envelope.....	July 11, 1871
111,154	Taylor, Morse K., United States Army. Furnace for steam-boilers.....	Jan. 24, 1871
120,837	Taylor, Newton W., and Joseph W. Brightman, Cleveland, Ohio. Paper-rag engine.....	Nov. 14, 1871
120,345	Taylor, Samuel D., Hazleton, Pa. Water-wheel.....	Oct. 24, 1871
	Taylor, Theodore F. (<i>See Halsey, William H., assignor.</i>)	
112,653	Taylor, Thomas, assignor to self and William Fitch, Washington, D. C. Fertilizer. (Antedated March 1, 1871).....	Mar. 14, 1871
114,880	Taylor, Thomas, assignor to Edmund S. Hanna and Waldimer A. Schmidt, England. Treatment of paper and paper-pulp.....	May 16, 1871
118,070	Taylor, Thomas A., Bangor, Me. Ice-pick.....	Aug. 15, 1871
112,193	Taylor, Warren H., Stamford, Conn. Flexible fastening for glass.....	Feb. 28, 1871
	Taylor, Warren H., and August Hermann. (<i>See Hermann & Taylor.</i>)	
117,236	Taylor, William, and Charles Hodgetts, assignors to Louis R. Boyd, Brooklyn, N. Y. Cap for preserver-jars.....	July 18, 1871
	Taylor, William Capp, <i>et al.</i> (<i>See Gillham, Taylor & Stolle.</i>)	
	Taylor, William K., and William H. Scriven. (<i>See Scriven & Taylor.</i>)	
	Taylor, William P., and Charles R. Peters. (<i>See Peters & Taylor.</i>)	
116,886	Taylor, Zalmon A., assignor to self and Alonzo P. B. King, Haverhill, Mass. Composition for dressing and coloring leather.....	July 11, 1871
	Teachout, Albert B., and Lester T. Hulbert. (<i>See Hulbert & Teachout.</i>)	
118,298	Teague, Benjamin, Moscow, Tenn. Manure-cart.....	Aug. 22, 1871
	Teal, James R. (<i>See Motley, Francis, assignor.</i>)	
121,019	Teamer, William, Evansville, Ind. Stove-lid.....	Nov. 14, 1871
121,687	Teasdale, Robinson, Albion, Ga. Calculating-machine.....	Dec. 5, 1871
115,263	Tebow, Theodore, Lexington, Ky. Washing-machine.....	May 23, 1871
115,387	Same.....Machine for breaking and cleaning hemp, flax, &c.....	May 30, 1871
115,338	Same.....Manufacture of bagging for cotton, &c.....	May 30, 1871
121,555	Teed, Jesse S., Guilford, N. Y. Water-wheel.....	Dec. 5, 1871
117,696	Tefft, James W., assignor to self, Henry Le Bosquet, and Perry C. Rude, Des Moines, Iowa. Base-burning stove.....	Aug. 1, 1871
	Telbinger, Francis. (<i>See Muller, Hermann, assignor.</i>)	
121,137	Teller, De Witt C., Fort Plains, N. Y. Water-wheel.....	Nov. 21, 1871
112,194	Teller, Jeremiah W., and William Townsend, Lapeer, Mich. Fence.....	Feb. 28, 1871
121,909	Tellier, Charles, assignor to Leopold Bouvier, France. Ammonia-engine.....	Dec. 12, 1871
119,196	Temple, James, assignor to L. C. Kinyon, Bellefonte, Pa. Railway-car coupling.....	Sept. 19, 1871
118,756	Templeton, James, Florence, Ga. Cotton-press.....	Sept. 5, 1871
114,489	Tenant, Hanson P., East Germantown, Ind. Combined blower and rotary engine.....	May 2, 1871
115,254	Tenant, Hanson P., assignor to self, Jacob Spence, and Henry M. Sowers, East Germantown, Ind. Rotary pump.....	May 23, 1871
120,795	Tennant, Christopher, Dublin, Md. Egg-carrier.....	Nov. 7, 1871
111,401	Tenwick, John, assignor to Robert Charles Ransome, England. Lubricator.....	Jan. 31, 1871
	Terhune, Matthias. (<i>See Truby, John W., assignor.</i>)	
117,483	Terrell, Theodore, Yonkers, N. Y. Saw-tilers' vise.....	July 25, 1871
121,910	Same.....Hoisting-apparatus.....	Dec. 12, 1871
119,286	Terrell, Wales, Ansonia, Conn. Die for forming carriage-head block-plates.....	Sept. 26, 1871
117,123	Terrill, Marvin, Star Prairie, Wis. Evener.....	July 18, 1871
117,348	Terry, James, jr., and Swift McG. Hunter, assignors to Eagle Lock Company, Terryville, Conn. Machine for turning keys.....	July 25, 1871
118,983	Terry, John B., deceased, by Hannah C. Terry, administratrix, Brooklyn, N. Y. Apparatus for generating and carburizing hydrogen-gas.....	Sept. 12, 1871
121,020	Terry, Silas B., assignor to Terry Clock Company, Waterbury, Conn. Fishing-reel.....	Nov. 14, 1871
	Terry, T. L. (<i>See Ruddock, Asahel D., assignor.</i>)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
117,016	Terwilliger, William, New York, N. Y. Device for operating safe-doors.....	July 11, 1871
113,465	Terwilliger, William, assignor to self and Frederick H. North, New York, N. Y. Permutation-lock.....	April 4, 1871
121,138	Tessier, Charles T., New York, N. Y. Sash-holder.....	Nov. 21, 1871
121,972	Test, Francis W., Chicago, Ill. Flower-stand for windows. (Antedated Dec. 12, 1871).....	Dec. 19, 1871
114,726	Tewell, Leonard S., Southampton Township, Pa. Cultivator-plow.....	May 9, 1871
	Thackara, John W., <i>et al.</i> (See Quann, William, assignor.)	
	Thacker, Charles, sr. (See Fallis, John N., assignor.)	
120,126	Thacker, Samuel, assignor through mesue assignments to John S. Cropper and Calvin H. Carter, England. Knit fabric.....	Oct. 17, 1871
121,021	Tharp, Colin and George P., Bryan, Ohio. Harrow.....	Nov. 14, 1871
112,983	Thatcher, John Merriitt, Bergen, N. J. Soap-dish.....	Mar. 21, 1871
115,785	Same..... Jersey City, N. J. Elbow for hot-air pipes.....	June 6, 1871
111,275	Thaxter, Eben C., Providence, R. I. Shuttle for sewing-machines.....	Jan. 24, 1871
5,403	Thayer, Andrew T., New York, N. Y. Buckle..... (Design)	Dec. 5, 1871
114,325	Thayer, Austin E., Philadelphia, Pa. Spring bed-bottom.....	April 25, 1871
114,065	Thayer, Frederick A., Sheldonville, Mass. Combined hay-rake and tedder.....	April 25, 1871
114,727	Thayer, Hiram Howard, Philadelphia, Pa. Wood-pavement.....	May 9, 1871
110,197	Same..... Neck-rie holder.....	Sept. 19, 1871
114,490	Thayer, Hiram H., and William H. Hart, jr., Philadelphia, Pa. Fabric for cuffs	May 2, 1871
	Thayer, James S. (See Johnston, Samuel, assignor.)	
	Same..... (See Johnston & Jenner, assignors.)	
5,006	Theberath, Charles M., Newark, N. J. Harness-trimming..... (Design)	June 13, 1871
115,543	Themar, Robert, and Brand Brothers, Sheboygan, Wis. Subsoil-plow. (Antedated May 22, 1871).....	May 30, 1871
113,222	Thickins, Richard W., and David R. Sperry, Batavia, Ill. Farmers' boiler.....	Mar. 25, 1871
117,484	Thiers, William Fitz James, assignor to Universal Ship Ventilator, Alarm, and Bilge-Pump Manufacturing Company, New York, N. Y. Ventilator for ships.....	July 25, 1871
121,474	Thiery, Charles Louis, Boston, Mass. Machine for making watch-cases.....	Dec. 5, 1871
117,320	Thissell, Carl Amri, Lowell, Mass. Loom-shuttle.....	July 18, 1871
	Thoener, Charles and Julius Kirsch. (See Kirsch & Thoener.)	
114,624	Thomas, Ames W., Philadelphia, Pa. Tournure.....	May 9, 1871
5,266	Same..... Bustle..... (Design)	Sept. 12, 1871
	Thomas, Augustin F., and Leonard C. Butch. (See Butch & Thomas.)	
115,786	Thomas, Charles F., Andrew J. and James A. Craig, and Jerome W. Hathaway, Woodhull, N. Y. Steam road-wagon.....	June 6, 1871
111,491	Thomas, Chauncey, Boston, Mass. Carriage-body.....	Jan. 31, 1871
111,492	Same..... Vehicle.....	Jan. 31, 1871
113,705	Same..... Carriage.....	April 11, 1871
	Same..... Carriage-prop..... (Extension)	Sept. 6, 1871
	Thomas, Elliot. (See Tooker, William S., assignor)..... (Design)	
4,851	Thomas, Francis E., assignor to Fellows, Hoffman & Co., New York, N. Y. Gas-fittings..... (Design)	April 25, 1871
116,887	Thomas, George G., Saint Louis, Mo. Chimney-cowl.....	July 11, 1871
118,299	Same..... Hot-air furnace.....	Aug. 22, 1871
	Thomas, Henry. (See Kirk, Solomon W., assignor)..... (Reissue.)	
113,223	Thomas, Jacob S., Mifflintown, Pa. Cultivator.....	Mar. 28, 1871
111,788	Thomas, James H., assignor of one-half interest to Benjamin F. Larabee, Lynn, Mass. Machine for cutting cheese, butter, &c.....	Feb. 14, 1871
111,789	Thomas, John, Hokendauqua, Pa. Removing slag from furnace.....	Feb. 14, 1871
114,226	Thomas, John H., Springfield, Ohio. Seed-drill.....	April 25, 1871
114,227	Same..... Feed-roller for grain-drills.....	April 25, 1871
112,093	Thomas, John H., and Phineas P. Mast, Springfield, Ohio. Grain-drill.....	Feb. 21, 1871
112,209	Thomas, John H., assignor to self and Phineas P. Mast, Springfield, Ohio. Grain-drill.....	Feb. 28, 1871
121,139	Thomas, Lancaster, assignor of one-half interest to Joshua Pusey, Philadelphia, Pa. Sheet-metal can.....	Nov. 21, 1871
120,838	Thomas, Leopold, Pittsburgh, Pa. Machine for rolling metal.....	Nov. 14, 1871
113,706	Thomas, Nathan H., New Orleans, La. Preserving wood.....	April 11, 1871
	Thomas, Nicholas, and Thomas Hull. (See Hull & Thomas.)	
	Thomas, Peter. (See Oakley, Oliver B., assignor.)	
121,911	Thomas, Rees, P., Sciotoville, Ohio. Fire-place.....	Dec. 12, 1871
	Thomas, Samuel. (See Miller & Clarringdon, assignors.)	
119,062	Thomas, William, Hingham, Mass. Rolling-pin.....	Sept. 19, 1871
112,749	Thomas, William P., and Joseph F. Boardman, Elko, Nev. Hair-restorative.....	Mar. 14, 1871
	Thomas, William R. (See Evans, Thomas & Hunt.)	
111,493	Thomas, William S., Kendallville, Ind. Stove-grate.....	Jan. 31, 1871
	Thomas, William W. (See Rall, James M., assignor.)	
122,291	Thomison, John B., Lynchburgh, Tenn. Harvester.....	Dec. 26, 1871
120,549	Thompson, Ambrose B., Owego, N. Y. Corn-sheller.....	Oct. 31, 1871
114,491	Thompson, Benjamin D., New York, N. Y. Automatic fan.....	May 2, 1871
119,249	Same..... Railroad-car heater.....	Sept. 26, 1871
113,466	Thompson, Charles A., Flushing, N. Y. Tubular steam-boiler.....	April 4, 1871
121,682	Thompson, Charles A., and James O. Coleman, Hopkinsville, Ky. Apparatus for supporting and lowering coffins.....	Dec. 5, 1871
117,578	Thompson, Charles Wesley, Chicago, Ill. Fluting-machine.....	Aug. 1, 1871
	Thompson, Daniel L. (See May, George W., assignor.)	
	Same..... (See Hastings, Emory B., assignor.)	
118,757	Thompson, Edward H., assignor to William A. Amberg, Washington, D. C. Paper-file.....	Sept. 5, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,402	Thompson, Edwin C., assignor to self and Charles S. O'Brien, New York, N. Y. Bed-bottom.....	Jan. 31, 1871
	Thompson, Elizabeth. (<i>See</i> Kelly, Peter J., assignor.)	
	Thompson, Ellis. (<i>See</i> Van Bramer, John P., assignor.)	
115,255	Thompson, George, Springfield, Ill. Fan-attachment for sewing-machines.....	May 23, 1871
110,692	Thompson, George W., Ripley, Ohio. Reversible plow.....	Jan. 3, 1871
120,172	Thompson, George W., New York, N. Y. Lamp. (Antedated Oct. 7, 1871).....	Oct. 24, 1871
112,510	Thompson, Henry G., Milford, Conn. Device for cooling journals of car-axles.....	Mar. 7, 1871
112,511	Same.....Cooling journals of car-axles.....	Mar. 7, 1871
112,512	Same.....Cooling journals of car-wheel axles.....	Mar. 7, 1871
112,513	Same.....Device for cooling journals of railway-cars.....	Mar. 7, 1871
	Same.....(<i>See</i> Smyth, David M., assignor).....(Two cases.)	
	Same.....(<i>See</i> Hopkins, George M., assignor.)	
120,127	Thompson, Hopkins, New York, N. Y. Reclining-chair.....	Oct. 17, 1871
116,372	Thompson, Horace, Concord, N. H. Die for forming beef-steak cutters.....	June 27, 1871
	Thompson, Ira D. (<i>See</i> Brown, James, assignor.)	
116,776	Thompson, James J., Columbus, Ohio. Cultivator.....	July 4, 1871
118,071	Thompson, James M., assignor to self, Justus Coney, and Charles Merwin, Dowagiac, Mich. Washing-machine. (Antedated Aug. 11, 1871).....	Aug. 15, 1871
116,888	Thompson, Joseph, Decatur, Mich. Combined shovel and post-hole digger.....	July 11, 1871
	Thompson, Joseph F. (<i>See</i> Peacock, Daniel K., assignor.)	
114,228	Thompson, J. Patton, Philadelphia, Pa. Envelope.....	April 25, 1871
	Thompson, Joseph W., and Joel Sharp. (<i>See</i> Sharp & Thompson.)	
	Thompson, Moses, deceased, by Charles N. Black, administrator <i>de bonis non</i> , New York, N. Y. Bagasse-furnace.....(Extension).....	Dec. 14, 1871
113,364	Thompson, Nathan, Brooklyn, N. Y. Window-shade fixture.....	April 4, 1871
113,467	Same.....Fastening for meeting-rails of sashes.....	April 4, 1871
119,198	Same.....Fastener for meeting-rails of sashes. (Antedated Sept. 2, 1871).....	Sept. 19, 1871
119,199	Same.....Casing for window-pulleys. (Antedated Sept. 2, 1871).....	Sept. 19, 1871
119,429	Same.....Knob for drawers, &c. (Antedated Sept. 9, 1871).....	Sept. 26, 1871
119,430	Same.....Pulley, sheave, and wheel. (Antedated Sept. 9, 1871).....	Sept. 26, 1871
119,725	Same.....Apparatus for pressing hollow-ware. (Antedated Sept. 26, 1871).....	Oct. 10, 1871
119,726	Same.....Plier. (Antedated Oct. 7, 1871).....	Oct. 10, 1871
120,796	Same.....Sash stop and lock. (Antedated Oct. 21, 1871).....	Nov. 7, 1871
121,735	Same.....Joint for folding furniture. (Antedated Nov. 22, 1871).....	Dec. 12, 1871
121,736	Same.....Mold for casting. (Antedated Dec. 1, 1871).....	Dec. 12, 1871
114,889	Thompson, Nelson S., Richmond, Ind. Seeding-cultivator.....	May 16, 1871
118,497	Same.....Coffee-roaster.....	Aug. 29, 1871
117,944	Thompson, Patrick, Pittsburgh, Pa. Saw.....	Aug. 8, 1871
111,701	Thompson, Robert W., Mansfield, Ohio. Filter for cisterns.....	Feb. 7, 1871
111,018	Thompson, Samuel, Schaghticoke, N. Y. Faucet for beer and other barrels.....	Jan. 17, 1871
114,991	Thompson, Samuel L., New Waterford, Ohio. Nut-lock.....	May 16, 1871
112,984	Thompson, S. Millett, Providence, R. I. Book-support.....	Mar. 21, 1871
113,816	Thompson, Samuel R., Portsmouth, N. H. Machine for making pottery-ware.....	April 18, 1871
120,128	Thompson, Thomas D., Providence, R. I. Head-rest.....	Oct. 17, 1871
111,403	Thompson, William and Samuel, Baltimore, Md. Cleaning and polishing coffee.....	Jan. 31, 1871
115,389	Thompson, William J., Springfield, Mo. Water-wheel.....	May 30, 1871
119,953	Thompson, William L., Stanstead, Canada. Dish-washer.....	Oct. 17, 1871
114,366	Thomson, Adaline L., Hudson City, N. J. Children's bib.....	May 2, 1871
112,985	Thomson, Alexander, Champaign, Ill. Sash-holder.....	Mar. 21, 1871
113,112	Thomson, Archibald, Saint Louis, Mo. Railway-switch lock.....	Mar. 28, 1871
113,365	Thomson, George W., Buffalo, N. Y. Coating lamps.....	April 4, 1871
118,168	Thomson, James E., Buffalo, N. Y., and Elijah Clark, Louisville, Ky. Life-preserver.....	Aug. 15, 1871
	Thomson, James E. (<i>See</i> Emery, James F., assignor.)	
121,912	Thomson, John, Aledo, Ill. Weather-strip.....	Dec. 12, 1871
	Thomson, John, and Robert Laidlaw. (<i>See</i> Laidlaw & Thomson.)	
116,510	Thomson, John N., North Attleborough, Conn. Cravat-holder.....	June 27, 1871
116,373	Thomson, Judson L., Syracuse, N. Y. Water-proof cigar-box.....	June 27, 1871
117,697	Thomson, Mortimer, New York, N. Y. Book-cover protector.....	Aug. 1, 1871
112,195	Thomson, Walter, assignor to Detroit Novelty Works, Detroit, Mich. Steam-heater.....	Feb. 28, 1871
120,404	Thomson, William, Madison, Wis. Instrument for measuring powders.....	Oct. 31, 1871
121,689	Same.....Paddle-wheel.....	Dec. 5, 1871
	Thorn, Jacob Steinmetz. (<i>See</i> Flinn, William Thomas, assignor.)	
119,800	Thorn, Theodore, Saint Clair, Pa. Elevator-brake.....	Oct. 10, 1871
112,196	Thorn, William J., New York, N. Y. Horse-collar.....	Feb. 28, 1871
116,511	Thorne, John R., Waldoborough, Me. Chain-hook. (Antedated June 16, 1871).....	June 27, 1871
113,113	Thorne, William H., Philadelphia, Pa. Apparatus for transmitting power to machinery.....	Mar. 28, 1871
114,229	Thorne, William H., assignor to Thorne & De Haven, Philadelphia, Pa. Portable drilling-machine.....	April 25, 1871
112,986	Thorniley, James W., New Brighton, Pa. Fire-place grate.....	Mar. 21, 1871
111,790	Thornton, Alexander B., New Berlin, Ill. Combined fender and gauge-wheel. (Antedated Feb. 11, 1871).....	Feb. 14, 1871
121,022	Thornton, Charles H., Newark, N. J. Harness-mounting.....	Nov. 14, 1871
120,550	Thornton, James, Oswego, N. Y. Table or stand.....	Oct. 31, 1871
113,468	Thornton, James, assignor to self and E. G. Latta, Wellsville, N. Y. Halter.....	April 4, 1871
113,469	Thornton, James, and Emmet G. Latta, Wellsville, N. Y. Attachment to hames.....	April 4, 1871
121,551	Same.....Genesee, N. Y. Whip-socket.....	Oct. 31, 1871
122,078	Same.....Hold-back attachment to vehicles. (Antedated Dec. 9, 1871).....	Dec. 10, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,945	Thornton, James, and Emmit G. Latta, assignors to James Thornton and James Macken, Wellsville, N. Y. Hame for harness	April 18, 1871
117,124	Thornton, Mary A., Perrysburgh, Ohio. Photographers' refrigerator	July 18, 1871
111,276	Thornton, William C., and James D. Cooley, Hillsville, Va. Sewing-machine motor	Jan. 24, 1871
119,544	Thornton, William M. K., Saint Louis, Mo. Spark-arrester	Oct. 3, 1871
119,545	Same Dust-shield for railway-cars	Oct. 3, 1871
110,693	Thorp, George W., Columbus, Kans. Extension plow-share	Jan. 3, 1841
112,987	Thorp, James H., New York, N. Y. Alarm-lock	Mar. 21, 1871
118,984	Thorp, Madison, Waterloo, Iowa. Corn-harvester	Sept. 12, 1871
112,395	Thoss, William H., West Point, Cal. Grinding-pan and amalgamator	Mar. 7, 1871
	Thrall, William Henry, <i>et al.</i> (See Dodge, William James, assignor.)	
	Throop, John W. (See Letterman, Charles, assignor.)	
	Thumb, Camillo, and Hermann Eissfeldt. (See Eissfeldt & Thumb.)	
	Thumm, Charles F., and Samuel A. Hill. (See Hill & Thumm.)	
111,095	Thurlow, Henry, Skaneateles, N. Y. Lubricator for axles	Jan. 17, 1871
	Thursby, Samuel L., <i>et al.</i> (See Pittman, George W., assignor.)	
120,219	Thurston, John A., assignor to self, Thomas Sampson, and William Langhoff, Providence, R. I. Cloth-shearing machine	Oct. 24, 1871
115,991	Thurston, Levi P., assignor to self, Alfred Parsons, and William Knutsford, jr., Rockport, Mass. Ships' rudder	June 13, 1871
116,889	Tibbets, Jonathan S., Brazil, Ind. Safety-shaft for vehicles	July 11, 1871
117,829	Same Draught-device for vehicles	Aug. 8, 1871
114,882	Tibble, James F., Detroit, Mich. Machine for bruising malt	May 16, 1871
111,404	Tice, Isaac P., New York, N. Y. Digging-machine. (Antedated Jan. 21, 1871) ..	Jan. 31, 1871
113,366	Same Water-meter	April 4, 1871
118,758	Same Plow. (Antedated Aug. 21, 1871)	Sept. 5, 1871
	Tidd, Stephen B. (See Mitchell, Samuel, assignor.)	
5,039	Tiebout, Cornelius H., New York, N. Y. Twine-reel	June 20, 1871
4,852	Tielenus, Carl, New York, N. Y. Faucet-holder	April 25, 1871
113,817	Tiernan, Patrick E., Waukegan, Ill. Pound-net for fishing	April 18, 1871
111,584	Tierney, Charles W., Altoona, Pa. Brake for railway-cars	Feb. 7, 1871
113,470	Tiesing, Frank, and Charles Gerner, assignors to Eli Whitney, New Haven, Conn. Breech-loading fire-arm	April 4, 1871
114,230	Same Breech-loading fire-arm	April 25, 1871
	Tiffany & Co. (See Moore, Edward C., assignor.) (Two cases.) (Design.)	
119,670	Tift, John D., Cayahoga Falls, Ohio. Fence	Oct. 3, 1871
4,565	Tifts, Lewis A., Springfield, Mass. Soldiers' monument	Jan. 10, 1871
119,250	Tilden, Henry A., New Lebanon, N. Y. Disinfecting-compound	Sept. 26, 1871
121,913	Same same	Dec. 12, 1871
116,117	Tileston, William M., New York, N. Y. Game-signal	June 20, 1871
121,973	Till, Franklin, Reading, Pa. Boiler for domestic purposes. (Antedated Dec. 1, 1871)	Dec. 19, 1871
110,694	Tillery, Henry L., Halifax, N. C. Seed-planter and guano-distributor	Jan. 3, 1871
110,803	Tillinghast, Clark P., Providence, R. I. Railroad-car ventilator	Jan. 3, 1871
113,818	Tillman, Samuel D., New York, N. Y. Steam-engine	April 18, 1871
111,094	Tilton, Edward W., Oshkosh, Wis. Handle for cross-cut saws	Feb. 21, 1871
119,063	Tilton, Joseph C., Pittsburgh, Pa. Wash-boiler	Sept. 19, 1871
112,864	Tilyon, Albert D., assignor to Cornelius A. Church, Norwich, N. Y. Stump-extractor	Mar. 21, 1871
4,622	Timby, Theodore R., Saratoga, N. Y. Thread and needle case. (Reissue) ..	Jan. 31, 1871
120,552	Same Tarrytown, N. Y. Railway freight-car	Oct. 31, 1871
120,553	Same Gun-carriage	Oct. 31, 1871
121,023	Same Railroad-spike	Nov. 14, 1871
119,097	Timms, James, and William P. Brown, Malta, Ohio. Car-coupling	Sept. 19, 1871
121,300	Timms, James, Malta, Ohio. Mowing-machine	Nov. 28, 1871
118,300	Timpe, Gustavus C., New Orleans, La. Elevator	Aug. 22, 1871
118,361	Same same	Aug. 22, 1871
115,657	Tingley, John, Philadelphia, Pa. Ice-cream freezer	June 6, 1871
4,231	Tinkham, Benjamin, assignor to Hapgood & Co., Cameron, Ill. Cultivator. (Reissue)	Jan. 10, 1871
4,600	Same Cultivator	Oct. 17, 1871
115,134	Tinkham, Orville M., Pomfret, Vt. Coffee-pot	May 23, 1871
113,566	Tinney, Joseph, Westfield, N. Y. Bed-bottom	April 11, 1871
119,200	Tinsley, George W., Blakesburgh, Iowa. Weather-board gauge	Sept. 19, 1841
118,169	Tinsley, George W., and Ebenezer W. Storer, Minneapolis, Minn. Mold for finger-rings	Aug. 15, 1871
118,561	Tirrell, Jacob P., assignor to Edward Gassett, Charlestown, Mass. Electro-magnetic engine	Aug. 29, 1871
4,632	Same Electro-magnetic engine. (Reissue) ..	Nov. 7, 1871
121,301	Tirrell, Jacob P., assignor to George F. Pinkham, Charlestown, Mass. Apparatus for lighting and extinguishing gas by electricity. (Antedated Nov. 17, 1871) ..	Nov. 28, 1871
121,302	Same Apparatus for lighting and extinguishing gas by electricity. (Antedated Nov. 17, 1871) ..	Nov. 28, 1871
118,302	Tirrill, Oakes, Brooklyn, N. Y. Apparatus for carbureting air and gas	Aug. 22, 1871
118,170	Tisdale, Charles D., Boston, Mass. Changeable-gauge car wheel and axle ..	Aug. 15, 1871
4,378	Tisdale, Charles D., assignor through mesne assignments to Charles Bockus and Samuel and Henry Shackell, Boston, Mass. Car-truck. (Reissue) ..	May 9, 1871
122,202	Tisdale, Charles D., assignor to self and Samuel Shackell, Boston, Mass. Railway-signal	Dec. 26, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,801	Tisdale, William S., New York, N. Y. Peat machine.....	Oct. 10, 1871
	Titus, John F. (<i>See</i> Phoebe, Thomas B., assignor.)	
115,658	Tivnan, Charles, Holyoke, Mass. Screw for water-gauges.....	June 6, 1871
113,707	Tizzard, James H., assignor to self and Samuel B. Tizzard, Eaton, Ohio. Leather-rounding machine.....	April 11, 1871
114,992	Tobey, Lyman, Naples, N. Y. Key-fastener.....	May 16, 1871
	Tobin, William. (<i>See</i> Moore, Charles, assignor).....(Two cases.)	
	Tobins, George C. (<i>See</i> Duff, James F., assignor.)	
	Todd & Rafferty, et al. (<i>See</i> Pittman, George W., assignor.)	
114,367	Todd, Henry B., Plymouth, Conn. Dish-washer.....	May 2, 1871
118,985	Todd, Herbert L., Corning, N. Y. Paper-trimming machine.....	Sept. 12, 1871
116,512	Todd, Joshua, assignor to self and William R. Bancroft, Webster, N. Y. Mop-head.....	June 27, 1871
121,914	Todd, Thomas and William, Schenectady, N. Y. Combined water gauge and cock.....	Dec. 12, 1871
111,585	Todd, Westly, Allegheny City, Pa. Wash-board.....	Feb. 7, 1871
114,883	Toepfer, Wenzel, assignor to Toepfer & Son, Milwaukee, Wis. Smoke-stack.....	May 16, 1871
115,391	Toepfer, Wenzel, assignor to Wenzel, Toepfer & Son, Milwaukee, Wis. Apparatus for stirring malt in the kiln.....	May 30, 1871
120,468	Tolan, Thomas J., Delphos, Ohio. Machine for sawing spokes.....	Oct. 31, 1871
	Toll, Alexander. (<i>See</i> Wilder, John, assignor.)	
	Tolman, S. P., et al. (<i>See</i> Veber, William F., assignor.)	
	Tolman, Warren A., and Judson Adams. (<i>See</i> Adams & Tolman.)	
	Tomes, Melvain & Co. (<i>See</i> Joslyn, Benjamin F., assignor.)	
119,546	Tomlinson, James, Goderich, Canada. Barrel.....	Oct. 3, 1871
120,684	Tomlinson, Jerome H., Mount Carroll, Ill. Cultivator.....	Nov. 7, 1871
111,277	Tomlinson, John J., Bozeman City, Mont. Mill-stone grinder.....	Jan. 24, 1871
118,562	Tompkins, Arnold, Paris, Ill. Cultivator.....	Aug. 29, 1871
114,884	Tompkins, James V., assignor to self and John Cavender, Canandaigua, Mich. Brick-machine.....	May 16, 1871
	Tompkins, Lyman P. (<i>See</i> Brewer, Russell, assignor.)	
120,797	Tompkins, Milo L., Wataga, Ill. Washing-machine.....	Nov. 7, 1871
120,173	Toof, Edwin J., Fort Madison, Iowa. Ruffing-attachment for sewing-machines.....	Oct. 24, 1871
4,716	Tooker, William S., assignor to self and Elliot Thomas, Kingsborough, N. Y. Back for mittens.....(Design).....	Mar. 14, 1871
119,695	Topham, Richard B., Washington, D. C. Printers' furniture.....	Jan. 3, 1871
111,702	Topham, William H., New York, N. Y. Paper-cutting machine. (Antedated Feb. 1, 1871).....	Feb. 7, 1871
114,728	Topliff, Cyrus L., Brooklyn, N. Y. Clothes-line holder.....	May 9, 1871
5,264	Topliff, George Francis, assignor to the United States Mail-Box Company, Boston, Mass. Letter-box.....(Design).....	Sept. 12, 1871
114,885	Topliff, Isaac N., Elyria, Ohio. Combined carriage-bow cover and slat-iron.....	May 16, 1871
122,079	Topliff, John A., and George H. Ely, Elyria, Ohio. Connecting carriage-springs.....	Dec. 19, 1871
117,017	Torrent, John, Muskegon, Mich. Machine for rolling logs.....	July 11, 1871
120,220	Same.....Log-rolling machine.....	Oct. 24, 1871
117,221	Torres, Joseph R., New Orleans, La. Refrigerator.....	July 18, 1871
	Torrey, Edward S. and Joseph. (<i>See</i> Linscott, Charles F., assignor.)	
113,114	Torrey, Francis B., Bath, Me. Manufacture of composition-roller bushings.....	Mar. 28, 1871
	Torstrick, Henry. (<i>See</i> Pirz, Anthony, assignor.)	
	Same.....(<i>See</i> Boeklen, Reinhold, assignor.)	
111,096	Torstrick, Henry, New York, N. Y., and Reinhold Boeklen, Brooklyn, N. Y. Railroad-spike. (Antedated Jan. 6, 1871).....	Jan. 17, 1871
	Toulmin, John, Worcester, Mass. Vibrating-shears.....(Extension).....	Aug. 12, 1871
117,485	Tournier, Adolphe, Barnville, N. Y. Garden-tool for trimming sod.....	July 25, 1871
118,530	Tousley, Miron G., assignor to Diebold & Kienzie, Mendota, Ill. Spindle for safe-locks.....	Sept. 12, 1871
119,251	Tout, Thomas, Cambridge, Mass. Fishing-rod.....	Sept. 26, 1871
	Towar, A. H. (<i>See</i> Caswell, Ezra, assignor.)	
119,671	Tower, Daniel L., New York, N. Y. Water-meter.....	Oct. 3, 1871
120,129	Same.....Permutation-lock.....	Oct. 17, 1871
116,890	Tower, George W., Cambridge, Mass. Pipe-cutter.....	July 11, 1871
116,891	Tower, Morton, Boston, Mass. Mode of attaching car-basket racks.....	July 11, 1871
5,145	Same.....Car-basket rack.....(Design).....	July 25, 1871
120,024	Same.....Railway-car basket.....	Nov. 14, 1871
110,878	Towers, William H., Boston, Mass. Method of coating sad-irons, &c.....	Jan. 10, 1871
112,514	Same.....Non-heating handle for sad-irons, &c.....	Mar. 7, 1871
112,988	Same.....Elastic roll.....	Mar. 21, 1871
114,231	Same.....Clothes-wringer.....	April 25, 1871
117,018	Same.....Material for filling mattresses, cushions, and articles of upholstery.....	July 11, 1871
120,346	Same.....Wash-board.....	Oct. 24, 1871
4,316	Towers, William H., assignor to the Vertical Hoop-Skirt Company, Boston, Mass. Hoop-skirt.....(Reissue).....	Mar. 23, 1871
110,879	Towle, Edward B., Newburyport, Mass. Thimble.....	Jan. 10, 1871
111,278	Towle, Hamilton E., Newark, N. J. Loom.....	Jan. 24, 1871
116,645	Towle, Stevenson, New York, N. Y. Sewer-trap.....	July 4, 1871
111,586	Towne, Henry R., Stamford, Conn. Prison-lock.....	Feb. 7, 1871
111,587	Same.....Permutation-lock.....	Feb. 7, 1871
118,986	Same.....Lock.....	Sept. 12, 1871
	Towne, Lauriston, Providence, R. I. Chain-machine.....(Extension).....	Oct. 9, 1871
120,347	Towner, Justin D., and General J. Harris, Murfreesborough, Tenn. Baling-press.....	Oct. 24, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,625	Townes, William B., Grenada, Miss. Combined corn and cotton plauter	May 9, 1871
115,659	Townsend & Jackson. (See Blessing, James H., assignor) (Two cases.)	June 6, 1871
	Townsend, Alfred H., Georgetown, Colo. Repeating ordnance	
	Townsend, Elmer. (See Goddn, Louis, assignor) (Two cases.)	
	Townsend, Frederick. (See Blessing, James H., assignor) (Four cases.)	
113,471	Townsend, Henry, Philadelphia, Pa. Ship's trestle-tree. (Antedated March 22, 1871)	April 4, 1871
	Townsend, Henry Elmer. (See Carns, William A., assignor.)	
121,140	Townsend, Israel, Capeville, Va. Railway-car brake	Nov. 21, 1871
111,990	Townsend, Owen W., assignor to self and George O. Trowbridge, Fond du Lac, Wis. Combined augur and reamer	Feb. 21, 1871
111,279	Townsend, Ross, Liberty Township, Ohio. Rein-supporter	Jan. 24, 1871
	Townsend, William, and Jeremiah W. Teller. (See Teller & Townsend)	
116,237	Towslee, Moses B., Pewamo, Mich. Bed-bottom	June 20, 1871
115,391	Toye, William H. R., Philadelphia, Pa. Printing-press	May 30, 1871
	Tracey, William. (See Menzer, Frederick, assignor.)	
115,135	Tracy, Albert, Paris Hill, Me. Damper	May 23, 1871
	Tracy, George S., and Thomas A. Galt. (See Galt & Tracy) (Two cases.)	
	Same..... same (Design.)	
119,897	Tracy, Joseph B., Lincoln, Del. Railway-car coupling	Oct. 10, 1871
121,556	Same..... Bridge	Dec. 5, 1871
121,823	Same..... Car-coupling	Dec. 12, 1871
112,565	Tracy, Lewis W., assignor to self and James E. Granniss, New York, N. Y. Brake for railway-car	Mar. 21, 1871
115,992	Trafford, Thomas, assignor to self, John S. Brown, and Samuel A. Worth, Dublin, Md. Manufacture of cast-steel direct from the ore	June 13, 1871
113,798	Tranter, James, and Joseph Kinney, Cincinnati, Ohio. Roll for rolling hoop, bar, and rod iron	April 11, 1871
119,672	Trapp, Edward A., assignor of one-fourth interest to Henry J. Hntner, San Francisco, Cal. Railway-switch	Oct. 3, 1871
121,824	Trapp, Edward A., San Francisco, Cal. Railway-switch	Dec. 12, 1871
116,777	Trapp, Thomas Jefferson, Williamsport, Pa. Bag-holder	July 4, 1871
117,019	Same..... Deep-well pump	July 11, 1871
113,709	Trask, Henry C., Vienna, Me. Shovel-handle	April 11, 1871
112,866	Trasy, Eben, Vermontville, Mich. Tuvare	Mar. 21, 1871
114,626	Traut, Justus A., assignor to the Stanley Rule and Level Company, New Britain, Conn. Adjustable bevel	May 9, 1871
113,367	Trautham, Thomas H., De Soto County, Miss. Cotton-scraper. (Antedated March 29, 1871)	April 4, 1871
119,898	Traver, Alvah, and Philip Nichols, Troy, N. Y. Churn	Oct. 10, 1871
115,787	Travis, Joseph H., Charlestown, Mass. Chair	June 6, 1871
121,825	Treadway, John, Haverstraw, N. Y. Brick-machine	Dec. 12, 1871
121,826	Treanor, James J., New York, N. Y. Fire-escape	Dec. 12, 1871
114,368	Treat, Robert M., Morris, Conn. Horse hay-rake	May 2, 1871
118,987	Treat, Upham S., Eastport, Me. Fertilizer from sea-weeds	Sept. 12, 1871
	Tredegar Company. (See Eynon, David, assignor.)	
121,219	Tredway, Louis D., Saint Louis, Mo. Vault for sewers	Nov. 21, 1871
118,303	Trefether, Charles, Manchester, N. H. Lap-board	Aug. 22, 1871
116,238	Trefry, Harvey, Winfield, Mich. Car-coupling	June 20, 1871
118,654	Tregellas, Henry, Calumet, Mich. Mangle	Aug. 29, 1871
114,886	Tregurtha, James, assignor to George H. Sanborn, Charlestown, Mass. Paper-rolling machine	May 16, 1871
114,369	Tremain, Charles W., Chicago, Ill. Wheel for traction-engines	May 2, 1871
121,690	Tremper, Theodore B., Rockland Lake, N. Y. Car-coupling	Dec. 5, 1871
113,472	Trent, Joseph, Millerton, N. Y. Lamp-burner	April 4, 1871
115,909	Trescott, Martin W., North Canaan, Conn. Horse hay-rake	June 13, 1871
115,542	Trevitt, Constant S., Washington, D. C. Document-case	May 30, 1871
121,691	Trigalet, Frederic, Astoria, N. Y. Garden-hoe	Dec. 5, 1871
119,802	Trimble, Charles B., New York, N. Y. Bottle-opener	Oct. 10, 1871
120,012	Trimmer, Benjamin T., Rochester, N. Y. Smut-mill and grain-cleaner	Oct. 17, 1871
117,830	Triphagen, Charles Henry, Pewamo, Mich. Spring bed-bottom	Aug. 8, 1871
112,654	Tripler, Archibald B., New Orleans, La. Apparatus for making ice and refrigerating. (Antedated Feb. 23, 1871)	Mar. 14, 1871
118,760	Same..... Device for preventing railway-axes from heating. (Antedated Aug. 19, 1871)	Sept. 5, 1871
116,513	Tripler, Charles E., New York, N. Y. Propelling-apparatus for vessels	June 27, 1871
4,615	Tripp, Augustus F., assignor to Sidney Shepard & Co., Buffalo, N. Y. Dredge-box	Oct. 31, 1871
	Tripp, Hiram B., and George L. Damon. (See Damon & Tripp.)	
120,348	Tripp, O. K., Rochester, N. Y. Oil-blackening for leather	Oct. 24, 1871
	Tripp, Seth D., and Luther Hill. (See Hill & Tripp.)	
122,203	Triscott, Samuel P. R., and George A. Wheeler, Worcester, Mass. Shoe-fastening. Trissler, Henry W. and Walter D., et al. (See Clute & Trissler.)	Dec. 26, 1871
122,080	Tritt, Joseph, Richmond, Ohio. Bee-hive	Dec. 19, 1871
117,579	Troll, Joseph, Belleville, Ill. Tullurium	Aug. 1, 1871
	Trouson, Luke F., and Francis Kearney. (See Kearney & Trouson.)	
115,392	Trotter, Charles W., assignor to self and George Frauenberger, Rochester, N. Y. Steam-heater	May 30, 1871
	Troup, James H., and Joseph H. Subers. (See Subers & Troup.)	
120,130	Troutmar, James A., Seneca Falls, N. Y. Process of attaching teeth to pyroxy-line dental plates	Oct. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,655	Trowbridge, Charles Edward, Whitinsville, Mass. Fastener* for spinning-rings.	Mar. 14, 1871
	Trowbridge, George O. (See Townsend, Owen W., assignor.)	
	Trowbridge, H. and G. O. (See Pitcher, Hiram, assignor.)	
114,232	Trowbridge, James T., Akron, Ohio. Seeder and cultivator combined	April 25, 1871
114,370	Troxell, Daniel, Newark, N. J. Lunch-box	May 2, 1871
121,436	Troyer, John D., Goshen, Ind. Stump-extractor	Nov. 28, 1871
111,019	Truax, Jacob W., Essex Junction, Vt. Water-wheel	Jan. 17, 1871
117,831	Truby, John W., assignor to Matthias Terhune, Chicago, Ill. Corner-socket for show-cases, boxes, &c.	Aug. 8, 1871
117,486	Trudeau, Toussaint, Ottawa, Canada. Globe for gas-lights	July 25, 1871
4,633	Same. same. (Reissue)	Nov. 7, 1871
118,072	True, Jeremiah R., Richmond, Maine. Dumping-carriage	Aug. 15, 1871
110,696	Truex, John H., Rochester, N. Y. Platform-scale	Jan. 3, 1871
4,662	Truitt, Henry A., assignor to Thomas Dolan, Philadelphia, Pa. Fringe. (Design)	Feb. 14, 1871
4,663	Same. Tasseled fringe. (Design)	Feb. 14, 1871
120,131	Trulsen, Hans, Painesville, Ohio. Warping-chock for vessels	Oct. 17, 1871
113,946	Trumbore, Samuel, Easton, Pa. Seal for hydraulic mains of gas-works	April 18, 1871
115,788	Same. Apparatus for exhausting gas from retorts	June 6, 1871
	Trumbull, John H. (See McNaughton, William, assignor.)	
119,064	Trump, George, assignor to self and George William Huntley, Second Fork Village, Pa. Machine for grading and ditching roads	Sept. 19, 1871
120,839	Same. Combined root-cutter and shovel-plow	Nov. 14, 1871
113,368	Truscott, Samuel, Cleveland, Ohio. Rubber-paint	April 4, 1871
	Trusty, John H. (See Seldis, Raphael M., assignor.)	
120,911	Truxell, John S., Greensburgh, Pa. Harvester. (Antedated Oct. 28, 1871)	Nov. 14, 1871
122,140	Tuck, Daniel C., Farmington, Maine. Safety-clasp for pockets	Dec. 26, 1871
114,492	Tucker, Charles L., Chicago, Ill. Preparation for clarifying coffee	May 2, 1871
4,369	Same. Package for lard	May 2, 1871
111,494	Tucker, Cyrus, Terre Haute, Ind. Chair	Jan. 31, 1871
118,405	Tucker, Frederick O., Stonington, Conn. Loom-shuttle	Aug. 22, 1871
119,201	Same. same.	Sept. 19, 1871
121,262	Same. same.	Nov. 28, 1871
117,698	Tucker, Frederick O., assignor of two-thirds interest to Thomas Isherwood and Amos Mallory, Westerly, R. I. Weft stop-motion	Aug. 1, 1871
115,993	Tucker, Sewell, and John R. Brownell, Dayton, Ohio. Steam-boiler	June 13, 1871
	Tucker, Stephen D., and Richard M. Hoe. (See Hoe & Tucker)	(Reissue.)
	Tucker, Stephen D., et al. (See Hoe, Richard M., assignor)	(Reissue.)
111,588	Tucker, Theodore M., Newark, N. J. Fluting-machine	Feb. 7, 1871
117,487	Same. same.	July 25, 1871
	Tucker, William, and John B. Brennan. (See Brennan & Tucker.)	
119,202	Tucker, William H., Indianapolis, Ind. Alarm-lock for tills	Sept. 19, 1871
111,097	Tuddenham, Stephen, England. Manufacture of ornamental bars or rods of metal	Jan. 17, 1871
115,660	Tuder, William, Moffettown, Tex. Current-wheel	June 6, 1871
112,396	Tufts, Angustus, Malden, Mass. Street-lantern	Mar. 7, 1871
	Tufts, Grosvenor & Co. (See Richards, Albert D., assignor.)	
	Tufts, James W. (See Meecham, George F., assignor) .. (Two cases.) (Design.)	
111,098	Tule, George H., assignor to self and Samuel Wood, Haddenfield, N. J. Wagon-jack	Jan. 17, 1871
	Tully, Mathew C., et al. (See Blundell, William A., assignor.)	
110,804	Tumler, Antony, New York, N. Y. Soda-water fountain	Jan. 3, 1871
121,827	Tunbridge, John, Newark, N. J. Apparatus for amalgamating ores	Dec. 12, 1871
114,887	Tunnicliff, John R., Vanhornsville, N. Y. Wrapper-cutter	May 16, 1871
114,888	Same. Machine for stripping and booking tobacco	May 16, 1871
4,554	Tunnicliffe, J. R., assignor to Jonathan O. Fowler, jr., Hudson, Wis. Fire-alarm. (Reissue)	Sept. 12, 1871
117,222	Turbett, David H., New Bloomfield, Pa. Lime-kiln	July 18, 1871
113,947	Turley, Marshall, Council Bluffs, Iowa. Printers' ink	April 18, 1871
118,406	Same. Device for securing the boxing in hubs	Aug. 22, 1871
115,544	Turnbull, Andrew, New Britain, Conn. Housing for clothes-lines	May 30, 1871
121,974	Turnbull, John, Simsbury, Conn. Hand-protector	Dec. 19, 1871
	Turnbull, John M. (See Dryden, William A., assignor.)	
115,661	Turner, Archibald, England. Sewing-silk, thread, &c	June 6, 1871
114,493	Turner, Benjamin G., Fremont, Nebr. Harvester	May 2, 1871
114,066	Turner, Charles J., and Marcellous L. Wilkison, Olean, N. Y. Seed-planter	April 25, 1871
117,945	Turner, Edmund Malcolm, Pittsburgh, Pa. Ice creeper	Aug. 8, 1871
114,494	Turner, Elisha, Wolcottville, Conn. Curtain-fixture	May 2, 1871
	Same. (See Curtiss, Willis, jr., assignor.)	
	Turner, G. W., et al. (See Wicks, Loren J., assignor.)	
121,915	Turner, James, Chicago, Ill. Drier	Dec. 12, 1871
	Turner, John, and James Ferguson. (See Ferguson & Turner.)	
5,649	Turner, John, Norwich, Conn., and Isaac E. Palmer, Montville, Conn.; said Palmer assignor to said Turner. Machine for covering cord	Nov. 23, 1871
110,697	Turner, Joshua, assignor to Benjamin A. Pettingill and Isaac S. Pear, Cambridgeport, Mass. Folding-bedstead	Jan. 3, 1871
116,892	Turner, Nathan F., Williamsburgh, N. Y. Inking-apparatus for printing-presses	July 11, 1871
111,791	Turner, Reuben D., New York, N. Y. Apparatus for the treatment of alcoholic and other spirits	Feb. 14, 1871
	Turner, Roswell W. (See Hunt, Leonard B., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Turner, Seymour and Judds. (<i>See Steele, Elbridge J., assignor.</i>) (Three cases.) (Design.)	
	Same.....(<i>See Steele, Elbridge J., assignor.</i>)	
	Same.....(<i>See Goodrich, Albert J., assignor.</i>)	
116,893	Turner, S. S., Westborough, Mass., and I. S. Craig, Boston, Mass. assignors to I. S. Craig. Sewing-machine.....	July 11, 1871
117,832	Turner, Sidney S., Westborough, Mass., and Collins and George M. Stevens, Boston, Mass., assignors to selves and Edward B. Pendleton, Hand-stamp. (Antedated July 27, 1871).....	Aug. 8, 1871
118,988	Turner, William H., assignor to self and Charles E. Cardell, Indianapolis, Ind. Hot-air furnace.....	Sept. 12, 1871
116,894	Turney, John B., Inkster, Mich. Potato-bug destroyer.....	July 11, 1871
114,889	Turnipseed, Edward B., Columbia, S. C. Cotton-chopper.....	May 16, 1871
110,698	Tuthill, Beckwith W., Oregon City, Oreg. Wheelbarrow-frame.....	Jan. 3, 1871
4,341	Same..... same..... (Reissue).....	April 11, 1871
121,916	Same..... New York, NY, Tubular frame of wheelbarrows and trucks.....	Dec. 12, 1871
116,374	Tuthill, Benjamin F., assignor of one-half interest to Stephen V. R. Tuthill, Chicago, Ill. Basket.....	June 27, 1871
111,280	Tuttle, David K., and Orazio Lugo, Baltimore, Md. Ice-machine. (Antedated Jan. 7, 1871).....	Jan. 24, 1871
120,912	Tuttle, David A., Brooklyn, N. Y. Air-register.....	Nov. 14, 1871
117,349	Tuttle, John W., Newton, Mass. Pasteboard packing-box.....	July 25, 1871
117,350	Same..... Paper packing-box.....	July 25, 1871
120,349	Tweddle, Herbert W. C., Pittsburgh, Pa. Refining hydrocarbon-oils.....	Oct. 24, 1871
119,252	Twining, Alexander C., New Haven, Conn. Apparatus and process for the manufacture of salt. (Antedated Sept. 25, 1871).....	Sept. 26, 1871
121,975	Same..... Ice-machine using ammonia. (Antedated Dec. 9, 1871).....	Dec. 19, 1871
118,989	Twining, Charles O., Saint Louis, Mo. Oil-can.....	Sept. 12, 1871
	Twiss, Nelson W., and Henry R. Hill. (<i>See Hill & Twiss.</i>)	
111,589	Twitchell, Willard, Syracuse, N. Y. Stove-drum.....	Feb. 7, 1871
112,989	Twombly, Charles, Boston, Mass. Thill-coupling.....	Mar. 21, 1871
4,257	Tyer, Henry G., Andover, Mass. Overshoe..... (Reissue).....	Feb. 7, 1871
	Tyer, John B., and Hugh M. Stephenson. (<i>See Stephenson & Tyer.</i>)	
	Tyler, Brown & Co. (<i>See Brinly, Thomas E. C., assignor.</i>)	
114,067	Tyler, Charles E., Georgetown, Mass. Shoe.....	April 25, 1871
4,544	Tyler, Charles N., Buffalo, N. Y. Wash-boiler..... (Reissue).....	Sept. 5, 1871
	Same.....(<i>See Nichols, Silas C., assignor.</i>)	
4,539	Tyler, John, West Lebanon, N. H. Water-wheel..... (Reissue).....	Aug. 29, 1871
112,867	Tyler, John T., Pittsburgh, Pa. Roll for the manufacture of planters' hoes.....	Mar. 21, 1871
	Tyler, John T., et al. (<i>See Brodie, Smith & Tyler.</i>)	
114,371	Tyler, Samuel W., Troy, N. Y. Mold for making cushioned belting. (Antedated April 27, 1871).....	May 2, 1871
115,910	Same..... Flax-harvester.....	June 13, 1871
117,125	Same..... Flax-puller.....	July 18, 1871
4,912	Tyler, Walter L., assignor to the E. N. Welch Manufacturing Company, Bristol, Conn. Clock-case..... (Design).....	May 16, 1871
114,993	Tyler, William, Georgetown, D. C. Dough-kneader.....	May 16, 1871
115,789	Tyrell, Edward, Brooklyn, N. Y. Machine for labeling round boxes.....	June 6, 1871
	Tyson, Samuel Traquar. (<i>See McCoy, John, assignor.</i>)	
112,515	Uhl, John Ernst, Renova, Pa. Lubricator.....	Mar. 7, 1871
115,136	Uhlhorn, John F., Sacramento, Cal. Printers' furniture.....	May 23, 1871
110,940	Ulman, William F., Boston, Mass. Piano.....	Jan. 10, 1871
118,407	Same..... Pianoforte.....	Aug. 22, 1871
115,545	Ulmer, Amos M., Philadelphia, Pa. Weather-strip.....	May 30, 1871
118,304	Ultsch, John B., assignor to self and Curtis Davis, Cambridge, Mass. Soap cutting and beading machine.....	Aug. 22, 1871
115,662	Underhill, Edward F., Brocton, N. Y. Vine-lock. (Antedated May 30, 1871).....	June 6, 1871
4,665	Underwood, Flavius J., assignor to Basil D. Buford, Rock Island, Ill. Cultivator..... (Reissue).....	Dec. 12, 1871
112,516	Underwood, Franklin, South Rutland, N. Y. Combined corn-planter and cultivator.....	Mar. 7, 1871
	Underwood, Thomas, and Nelson Warren. (<i>See Warren & Underwood.</i>)	
120,132	Unger, William, Newark, N. J. Circuit-closer.....	Oct. 17, 1871
	Union Eyelet Company. (<i>See Smith & Young, assignors.</i>)	
	Union Manufacturing Company. (<i>See Carleton, John W., assignor.</i>)	
	Union Metallic Cartridge Company. <i>See Cochran, J. W., assignor.</i>	
	Union Pipe Company. (<i>See Culver, John P., assignor.</i>)	
	Union Steam and Water Heating Company. (<i>See Gold & Foscett, assignors.</i>) (Reissue).....	
	Union Stone Company. (<i>See Elliott, Josiah S., assignor.</i>)	
	Union Stove Works. (<i>See Finch, Reuben F., assignor.</i>)	
	United States and Foreign Salamander Felting Company. (<i>See Riley, John, assignor.</i>)	
	United States Brick-Machine Company. (<i>See Gard, Benjamin M. and Emery R., assignors.</i>)	
	United States Cartridge Company. (<i>See Molino, Angelo, assignor.</i>)	
	United States Mail-Box Company. (<i>See Topliff, Geo. Francis, assignor.</i>) (Design.)	
	United States Pipe-Protecting Company. (<i>See Mariner & Dorsett, assignors.</i>)	
	Universal Ship Ventilator, Alarm, and Bilge-Pump Manufacturing Company. (<i>See Thiers, William Fitz James, assignor.</i>)	
112,408	Unsworth, Thomas, and Edward Whalley, assignors to Thomas Unsworth. England. Machinery for making cords or bands.....	Aug. 22, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,699	Unverzagt, George, Philadelphia, Pa. Back of a chair or sofa.....(Design)...	Mar. 7, 1871
119,098	Updegraff, Horace, Fort Laramie, Wyo. Breech-loading fire-arm.....	Sept. 19, 1871
5,040	Upson, Lyman A., assignor to Hartford Carpet Company, Enfield, Conn. Carpet.....(Design)...	June 20, 1871
121,220	Upton, Parley, and Jacob B. Lobdell, Battle Creek, Mich. Thrashing-machine.....	Nov. 21, 1871
114,233	Uren, Richard, Santa Cruz, Cal. Blasting-fuse.....	April 25, 1871
119,203	Urie, Thomas S., assignor to self and George H. Cagwin, Hubbardston, Mich. Floor-clamp.....	Sept. 19, 1871
116,239	Urquhart, William Wallace, Bay City, Mich. Whiffletree-iron.....	June 20, 1871
111,590	Ustick, Stephen, Philadelphia, Pa. Lubricator for loose pulleys. (Antedated Jan. 26, 1871).....	Feb. 7, 1871
119,065	Same.....Lubricating loose pulleys in journals. (Antedated Sept. 1, 1871).....	Sept. 19, 1871
119,287	Same.....Lubricating loose pulleys. (Antedated Sept. 15, 1871).....	Sept. 26, 1871
119,288	Same.....Mode of lubricating journals. (Antedated Sept. 15, 1871).....	Sept. 26, 1871
121,557	Same.....Lubricator for car-journals. (Antedated Nov. 30, 1871).....	Dec. 5, 1871
121,069	Utley, Albert M., Watertown, N. Y. Blacking-box.....	Nov. 21, 1871
113,948	Utley, Foster, Chapel Hill, N. C. Washing-machine.....	April 18, 1871
112,095	Utley, Gabriel, Chapel Hill, N. C. Cotton-press.....	Feb. 21, 1871
115,137	Utley, Maurice Howell, Montreal, Canada. Apparatus for electrical, vacuum, and vapor treatment.....	May 23, 1871
119,899	Utley, Maurice H., and Alexander Ross, Montreal, Canada. Electro-magnetic motor.....	Oct. 10, 1871
117,699	Utter, Charles, and George E. Bruster, Newark, N. J. Fancet.....	Aug. 1, 1871
	Utton, James F., and Olney L. Smith. (See Smith & Utton.).....	
114,495	Vaass, Albert, and Franz Littmann, Prussia. Carré ice-machine.....	May 2, 1871
119,954	Valentine, John, Buffalo, N. Y. Horse-power.....	Oct. 17, 1871
121,737	Same.....Ditching-machine.....	Dec. 12, 1871
114,234	Valentine, Mann S., Richmond, Va. Preparing an extract of meat.....	April 25, 1871
4,937	Valentine, Samuel Winter, Bristol, Conn. Paper-bag.....(Design)...	May 23, 1871
111,792	Valentine, Samuel W., assignor to Porter Saw Company, Bristol, Conn. Method of attaching handles to saws.....	Feb. 14, 1871
117,700	Valley, James, and Franklin A. Wise, Canton, Ohio. Safety shaft-coupling.....	Aug. 1, 1871
118,990	Valley, John N., North East, Pa. Ironing and kitchen table combined.....	Sept. 12, 1871
120,350	Valley, John N., and John A. Stetson, jr., North East, Pa. Scrubbing-brush.....	Oct. 24, 1871
113,949	Van, John, Cincinnati, Ohio. Laundry-stove.....	April 18, 1871
116,646	Same.....Stove-door.....	July 4, 1871
119,066	Same.....Portable cooking-range.....	Sept. 19, 1871
111,495	Van Alstine, Cornelius C. E., New Haven, Conn. Truss.....	Jan. 31, 1871
113,597	Van Anden, William, Poughkeepsie, N. Y. Water-meter.....	April 11, 1871
120,913	Van Auker, Albert, Ludlowville, N. Y. Bridle-bit.....	Nov. 14, 1871
117,126	Van Auker, Miner, Utica, N. Y. Washing-machine.....	July 18, 1871
4,555	Van Auker, Miner, assignor to John Warner, Amsterdam, N. Y. Burr for knitting-machines.....(Reissue)...	Sept. 12, 1871
111,020	Van Benthysen, Henry B., Lock Haven, Pa. Window for stoves.....	Jan. 17, 1871
117,833	Same.....Base-burning stove. (Antedated Aug. 3, 1871).....	Aug. 8, 1871
113,224	Van Bibber, Andrew, Cincinnati, Ohio. Composition for printers' inking-rollers.....	Mar. 23, 1871
118,305	Van Bokkelen, Adrian H., Wilmington, N. C. Apparatus for distilling turpentine.....	Aug. 22, 1871
119,204	Van Bramer, John P., assignor to self and Ellis Thompson, Galesburgh, Ill. Machine for forming wire-bails.....	Sept. 19, 1871
	Van Bunschoten, Ruth Ann and Harriet. (See Sampson, William S., assignor.) (Two cases.).....	
120,914	Van Camp, Aaron, Washington, D. C. Asphaltic and crushed rock pavement.....	Nov. 14, 1871
4,810	Vance, John D., assignor to self and Forace M. Eddy, Cincinnati, Ohio. Revolving-grate.....(Design)...	April 11, 1871
4,236	Vance, Samuel B. H., assignor to Mitchell, Vance & Co., New York, N. Y. Apparatus for suspending gasoliers and drop-lights.....(Reissue)...	Jan. 17, 1871
114,890	Vance, William A., deceased, by George T. Clark, administrator, Kalamazoo, Mich. Millstone-balance.....	May 16, 1871
115,911	Van Choate, Silvanus Frederick, Boston, Mass. Breech-loading fire-arm.....	June 13, 1871
	Vancleave, Thomas Y., and James P. Crutcher. (See Crutcher & Vancleave.).....	
	Van Cleeve, James G., et al. (See Margerum, Mahlon R., assignor.).....	
116,240	Van Cleve, William H., Ypsilanti, Mich. Stove-leg.....	June 20, 1871
119,900	Same.....Punching-machine.....	Oct. 10, 1871
	Same.....Jamb-nut.....	Nov. 7, 1871
118,073	Van Cleve, William S., Centralia, Ill. Uterine-supporter.....	Aug. 15, 1871
119,901	Vandecar, Israel D., Chicago, Ill. Dredging-machine.....	Oct. 10, 1871
117,946	Vandemark, Archibald B., Jersey City, N. J. Composition for paving and roofing.....	Aug. 8, 1871
4,591	Same.....Manufacture of artificial asphalt-rock.....(Reissue)...	Oct. 10, 1871
114,496	Van Demark, James M., and Moses Barlow, Phelps, N. Y. Hay-elevator.....	May 2, 1871
116,647	Vandenburgh, Orlando B., Findlay, Ohio. Method of drawing patterns for flaring vessels.....	July 4, 1871
118,074	Vanderburgh, Van, assignor to Horatio Graves, Bacon Hill, N. Y. Agitator for washing-machines.....	Aug. 15, 1871
113,369	Vanderveer, Elias W. C., Elizabeth, N. J. Portable dumping-hod for earth-closets.....	April 4, 1871
121,475	Vanderweyde, Henry, New York, N. Y. Mode of applying tints to photographs.....	Dec. 5, 1871
117,488	Van Devort, Thomas S., Ypsilanti, Mich. Windmill.....	July 25, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,225	Van De Water, Joseph, assignor to George and George W. Esterly, White-water, Wis. Harvester	Mar. 28, 1871
111,155	Vandiver Corn-Planter Company. (See Barlow, Joseph C., assignor.)	
119,727	Van Duine, Marinus, and Jan De Jonge, Zealand, Mich. Manure-rake attachment for plows	Jan. 24, 1871
114,627	Van Dusen, Cornelius, Clarksville, N. Y. Bed-bottom	Oct. 10, 1871
120,221	Van Dyne, Jacob B., assignor to the North Western Fire-Extinguisher Company, Covington, Ky. Fire-extinguisher	May 9, 1871
120,222	Van Emon, Samuel, Covington, Ky. Steam-engine	Oct. 24, 1871
	Same..... Pitman-connection for steam-engines	Oct. 24, 1871
118,563	Van Gilder, Samuel G., and Benjamin H. Detwiler. (See Detwiler & Van Gilder.)	
114,068	Van Gorder, James L., Sidney, Ohio. Sulky-plow	Aug. 9, 1871
119,431	Van Hagen, Isaac, Chicago, Ill. Machine for punching and stamping metal	April 25, 1871
120,133	Van Hoosen, Eugene M., and Nelson H. Brown, Syracuse, N. Y. Railway-car coupling	Sept. 26, 1871
114,729	Van Hoevenbergh, Henry, New York, N. Y. Printing-telegraph	Oct. 17, 1871
4,610	Van Hoosen, Casper, Catskill, N. Y. Sash-balance	May 9, 1871
	Van Horn, Francis C., Camden, N. J. Bed-quilt	Jan. 24, 1871
117,834	Vanhorn, Joseph S., and William H. Pack. (See Pack & Vanhorn.)	
	Van Horn, Summer, assignor of two-thirds interest to Vallette W. and Edw. A. Van Horn, Chicopee, Mass. Pot and kettle cover	Aug. 8, 1871
111,793	Van Horne, Robert P., Gratiot, Ohio. Double-shovel plow	Feb. 14, 1871
117,835	Van Houten, William A. (See Fitch, Ross L., assignor.)	
121,221	Vaniz, Thomas G. Smith, Canton, Miss. Seed-planter	Aug. 8, 1871
111,021	Van Kannel, Theophilus, Cincinnati, Ohio. Tag	Nov. 21, 1871
117,223	Van Kersen, Izaak, Kalamazoo, Mich. Wagon-box and wagon-rack lifter	Jan. 17, 1871
112,990	Van Keuren, Henry, assignor to self and William Van Keuren, Jersey City, N. J. Floating-dock	July 18, 1871
110,941	Vanlunavee, John, and Hugh Smith, Moline, Ill. Walking-cultivator	Mar. 21, 1871
113,115	Vannice, Peter T., Kewanee, Ill. Book-case for schools, &c	Jan. 10, 1871
112,300	Van Norman, Jacob, Easton, Pa. Forcing liquids	Mar. 28, 1871
117,351	Vannosdall, James M. and Oliver W., Newark, Ill. Hedge-trimmer. (Ante-dated Feb. 18, 1871)	Feb. 28, 1871
119,803	Van Orden, Luther, Cincinnati, Ohio. Reclining-chair	July 25, 1871
121,692	Vanorman, Oliver, assignor of one-half interest to Judson A. Archibald, Fond du Lac, Wis. Hub for vehicle-wheels	Oct. 10, 1871
122,081	Vanorman, Oliver, Fond du Lac, Wis. Truss-brace for axle-skins	Dec. 5, 1871
115,912	Vanorstrand, Mary J. C., Pekin, Ill. Combined corset and skirt-supporter	Dec. 19, 1871
113,370	Van Pappelendam, Cornelis G., Charleston, Iowa. Metallic tile for roofs	June 13, 1871
120,469	Vausands, Horace, Middletown, Conn. Blind-fastener	April 19, 1871
120,554	Vansant, John, San Francisco, Cal. Electric gas lighting and extinguishing apparatus	April 4, 1871
5,233	Same..... Apparatus for lighting gas by electricity	Oct. 31, 1871
118,075	Van Santvoord, John, Mount Vernon, N. Y. Blacking-box	Oct. 31, 1871
122,082	Van Scoyoc, William, Oxford, Ohio. Hat-rack and mirror	Aug. 22, 1871
112,868	Vanstone, Samuel, assignor to George and James Chatterton, North Providence, R. I. Device for locking-bolts	Aug. 15, 1871
113,950	Van Tassel, John, Toledo, Ohio. Pump-piston	Dec. 19, 1871
119,547	Van Vlear, William H., et al. (See Vincent, George, assignor.)	
4,744	Van Vleck, Matthew, Albany, N. Y. Machine for coiling bed-springs	Mar. 21, 1871
5,057	Van Voorhis, Harvey B., Pittsburgh, Pa. Road-scraper	April 18, 1871
5,089	Van Wagner, Peter Spohn, Saltfleet Township, Canada. Device for destroying insects	Oct. 3, 1871
5,090	Van Wart, Ames, New York, N. Y. Statuary	Jan. 28, 1871
111,703	Same..... Alto-relief	June 27, 1871
113,473	Same..... Group of statuary	July 4, 1871
	Same..... same	July 4, 1871
	Van Wert, James L., Tolland, Mass. Hub for wheels	Feb. 7, 1871
	Van Wormer, Jasper, assignor to self and Michael McGarvey, Albany, N. Y. Base-burning stove	April 4, 1871
	Van Wormer, Jasper, and Michael McGarvey. (See Vedder & Heister, assignors.) (Design.)	
115,663	Van Wormer, Matthew, Troy, Ohio. Fence	June 6, 1871
120,799	Varin, Fabien, Huntsville, Ala. Bee-hive	Nov. 7, 1871
119,432	Varnes, Harvey B. (See Gaines, William C., assignor.)	
110,805	Varney, Joseph, Batavia, Ill. Washing-machine	Sept. 26, 1871
117,127	Vaughan, Alexander Sidney, Elkton, Md. School desk and chair	Jan. 3, 1871
	Vaughan, Daniel, assignor to self, Augustus L. Helm, and John B. Mahoney, Cincinnati, Ohio. Steam-heater	July 18, 1871
	Vaughan, John G., Middleborough, Mass. Mode of lathing and plastering. (Extension)	Jan. 12, 1871
115,393	Vaughan, John W., New York, N. Y. Cup of bobbin-winding machines	May 30, 1871
122,083	Vaughan, Phineas W., De Kalb, Ill. Grinder for harvester-knives	Dec. 19, 1871
113,819	Vaughn, Daniel J., and Oliver H. Young. (See Young & Vaughn.)	
118,409	Vaught, Granville J., Hanly, Ky. Corn-planter	April 18, 1871
112,301	Veasey, Joshua, Highland, Me. Wagon and cart brake	Aug. 22, 1871
115,394	Veber, William F., assignor to S. P. Tolman and C. C. Roberts, Perrysburgh, Ohio. Construction of wooden boxes	Feb. 28, 1871
111,887	Vedder, Jerome B., Gloversville, N. Y. Car-coupling	May 30, 1871
	Vedder, Nicholas S., Troy, N. Y. Cooking-stove	Feb. 14, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
4,611	Vedder, Nicholas S., and Francis Ritchie, assignors to Russell Wheeler, Troy, N. Y. Cooking-stove..... (Design).....	Jan. 24, 1871
4,645	Vedder, Nicholas S., and Francis Ritchie, assignors to Hicks & Wolfe, Troy, N. Y. Stove-plate..... (Design).....	Feb. 7, 1871
5,156	Vedder, Nicholas S., and Francis Ritchie, assignors to Nicholas S. Vedder, Troy, N. Y. Cooking-stove..... (Design).....	Aug. 1, 1871
5,157	Same..... Heating-stove..... (Design).....	Aug. 1, 1871
4,900	Vedder, Nicholas S., Troy, N. Y., and Tobias S. Heister, Lansingburgh, N. Y., assignors to John A. Goeway. Cooking stove or range..... (Design).....	May 9, 1871
5,158	Vedder, Nicholas S., Troy, N. Y., and Tobias S. Heister, Lansingburgh, N. Y., assignors to Nicholas S. Vedder. Heating-stove..... (Design).....	Aug. 1, 1871
5,159	Same..... Cooking-stove..... (Design).....	Aug. 1, 1871
5,160	Same..... same..... (Design).....	Aug. 1, 1871
5,161	Same..... same..... (Design).....	Aug. 1, 1871
5,162	Vedder, Nicholas S., Troy, N. Y., and Tobias S. Heister, Lansingburgh, N. Y., assignors to Jasper Van Wormer and Michael McGarvey. Cooking-stove. (Design).....	Aug. 1, 1871
120,470	Venable, Gilbert M., Memphis, Tenn. Rotary engine.....	Oct. 31, 1871
120,555	Venn, Charles, Kastnersville, Canada. Bathing-apparatus.....	Oct. 31, 1871
112,096	Verbeck, Amos, Sterling, Ill. Whiffletree-hook.....	Feb. 21, 1871
	Vermillion, James, and John W. Davis. (See Davis & Vermillion.)	
	Vernam, William D. (See Kenyon, Silas R., assignor)..... (Two cases.) ..	
112,197	Vero, Joseph, England. Machine for felting hat-bodies.....	Feb. 23, 1871
113,371	Veronee, Cornelious B., Athens, Ga. Animal-trap.....	April 4, 1871
116,895	Same..... Rectum-bathing apparatus.....	July 11, 1871
122,141	Verree, John P., Philadelphia, Pa. Elastic washer.....	Dec. 26, 1871
	Vertical Hoop-Skirt Company. (See Towers, William H., assignor) .. (Reissue.)	
119,433	Vertrees, James C., Gallatin, Tenn. Plow.....	Sept. 26, 1871
112,869	Vessot, Joseph, sr., and Samuel, jr., Joliet, Canada. Combined harrow, seeder, and roller.....	Mar. 21, 1871
115,395	Vest, Isam, New Iberia, La. Apparatus for boiling sugar, &c.....	May 30, 1871
113,598	Vestal, Richard K., Santa Cruz, Cal. Axle-gauge.....	April 11, 1871
117,224	Vestal, Tilghman R., Santa Fé, Tenn. Hoisting-apparatus.....	July 18, 1871
119,205	Viars, John A., Sherman, Tenn. Wheel-cultivator.....	Sept. 19, 1871
121,693	Vick, Frank H. and William H., Rochester, N. Y. Lawn canopy.....	Dec. 5, 1871
121,025	Vick, Holland E., Alliance, Ohio. Hub for carriage-wheels.....	Nov. 14, 1871
121,694	Same..... Car-wheel hub.....	Dec. 5, 1871
	Vickery, Charles R., et al. (See Nimmo, George, assignor)..... (Reissue.)	
117,489	Victor, Edward, assignor to self and Jacob D. Skelton, Fort Branch, Ind. Fly-trap.....	July 25, 1871
	Vidvard & Sheehan. (See Dunworth, James A. and Frank, assignors). (Design.)	
122,292	Vielle, Louis A. G., and Jean G. Robellaz, New Albany, Ind. Watchman's time-check.....	Dec. 26, 1871
	Victor, Rudolph, and Peter Heoter. (See Heoter & Victor.)	
5,091	Village, Thomas, assignor to Meriden Malleable Iron Company, West Meriden, Conn. Bracket and chandelier..... (Design).....	July 4, 1871
5,092	Same..... Bracket or chandelier arm..... (Design).....	July 4, 1871
118,410	Villard, Friedrich, Mount Eaton, Ohio. Combined hay and manure fork.....	Aug. 22, 1871
112,656	Vincent, George, Stockton, Cal. Machine for blocking ribbons, &c.....	Mar. 14, 1871
116,648	Vincent, George, assignor of two-thirds interest to William H. Van Vlear and Charles D. Ladd, Stockton, Cal. Roller-skate.....	July 4, 1871
116,375	Vining, Philomela T., assignor to self and Charles A. Wakefield, Springfield, Mass. Preserving natural flowers.....	June 27, 1871
	Vinton, John F. (See Hines, George A., assignor.)	
120,915	Vinton, John F., and George A. Hines, assignors of one-third interest to Seymour Field, Brattleborough, Vt. Permutation-lock.....	Nov. 14, 1871
115,790	Violet, Louis, New Lebanon, N. Y. Cough-mixture for use in candies.....	June 6, 1871
113,820	Vique, aine Guillaume, France. Disinfecting-compound.....	April 18, 1871
113,951	Viridin, William W., Baltimore, Md. Propelling canal-boats.....	April 18, 1871
118,076	Vitt, Alfred A., Union, Mo. Elevator-cup.....	Aug. 15, 1871
118,077	Vitt, Herman W., Union, Mo. Bush for mill-spindles.....	Aug. 15, 1871
111,991	Voegtli, Franz, Montgomery City, Mo. Spinning-wheel.....	Feb. 21, 1871
116,118	Voelker, Hermann, Newark, N. J. Boiler-flue scraper.....	June 20, 1871
4,418	Voelter, Henry, assignor to Albert Pagenstecher, Wurtemberg. Reducing wood to paper-pulp..... (Reissue).....	June 6, 1871
117,225	Vogelgesang, John J., Columbus, Ohio. Hot-air furnace.....	July 18, 1871
116,896	Vogt, William, Louisville, Ky. Apparatus for pitching beer and other barrels and casks.....	July 11, 1871
113,821	Voigt, Ferdinand F., New Orleans, La. Wardrobe and book-case.....	April 18, 1871
119,481	Same..... Moth-protector. (Antedated Sept. 14, 1871) ..	Oct. 3, 1871
116,241	Volger, Charles, Wilmington, Del. Call-bell.....	June 20, 1871
115,664	Vollhardt, George H., New Haven, Conn. Folding-step for carriages.....	June 6, 1871
118,306	Vollmar, Johann P. A., Germany. Filter.....	Aug. 22, 1871
	Von Briesen, Arthur, assignor to self and Victor E. Mauger, New York, N. Y. Writing-apparatus for the blind.....	Nov. 14, 1871
112,517	Vondersaar, Wendel, Indianapolis, Ind. King-bolt.....	Mar. 7, 1871
113,372	Von Dissen, Valentine, New York, N. Y. Bed-lounge.....	April 4, 1871
113,599	Von Jeinsen, Ernest, and James M. McDonald, San Francisco, Cal. Oil-reservoir for axle-boxes.....	April 11, 1871
113,116	Same..... Axle and axle-box for vehicles.....	Mar. 28, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
115,546	Von Martini, Friedrich, Switzerland. Breech-loading fire-arm.....	May 30, 1871
120,800	Same.....same.....	Nov. 7, 1871
	Von Nieda, Joseph S., and Conneillous Englebert. (See Englebert & Von Nieda.)	
	Von Phul, Henry, jr., and James Mallon. (See Mallon & Von Phul.)	
	Von Pohrnhoff, Alois P., and Charles C. Mengel. (See Mengel & Von Pohrnhoff.)	
119,902	Von Schmidt, Allexey W., San Francisco, Cal. Method of removing submarine rocks.....	Oct. 10, 1871
121,141	Voorhees, James Grover, Aqueduct Mills, N. J. Preserving wood.....	Nov. 21, 1871
111,405	Vose, Richard, New York, N. Y. Curtain-fixture.....	Jan. 31, 1871
119,253	Same.....Nest-spiral car-spring.....	Sept. 26, 1871
119,254	Same.....same.....	Sept. 26, 1871
117,701	Vosper, Herbert, England. Steam-engine.....	Aug. 1, 1871
4,824	Vredenburg, Jacob D., Chicago, Ill. Show-case.....(Design).....	April 18, 1871
111,992	Vreeland, Teunis, Oneida, Ill. Seeder.....	Feb. 21, 1871
114,994	Vrooman, Henry S., Boston, Mass. Machine for skiving soles of boots and shoes.....	May 16, 1871
115,994	Same.....Boot and shoe channeling machine.....	June 13, 1871
119,434	Vrooman, Jacob V., Schenectady, N. Y. Stove-cover for fuel-reservoirs.....	Sept. 26, 1871
122,084	Vrooman, Jacob V., and Jonas H. Clute, Schenectady, N. Y. Reservoir-stove.....	Dec. 19, 1871
119,206	Waddell, James, Liberty, Ind. Cultivator.....	Sept. 19, 1871
114,497	Waddell, William W., Hillsborough, Ohio. Draught-regulator for stoves.....	May 2, 1871
112,198	Waddle, John, Bakerstown, Pa. Fence.....	Feb. 28, 1871
5,409	Wade, James, Palmer, Mass. Carpet-pattern.....(Design).....	Dec. 12, 1871
5,410	Same.....same.....(Design).....	Dec. 12, 1871
113,373	Wadham, John A., Blue Island, Ill. Potato-digger.....	April 4, 1871
114,372	Wadsworth, Arthur, Newark, N. J. Pallet for watches.....	May 2, 1871
112,657	Wadsworth, Constant W., and Carl Gullberg, Peekskill, N. Y. Attaching the hair-springs of watches.....	Mar. 14, 1871
120,916	Wadsworth, Decius, Brooklyn, N. Y. Manufacture of white-lead.....	Nov. 14, 1871
	Wadsworth, Henry C., and Sullivan Forehand. (See Forehand & Wadsworth.) (Two cases.)	
117,128	Wadsworth, Omar A., Allegheny City, Pa. Machine for making spikes.....	July 18, 1871
121,222	Wagener, David S., Pultney, N. Y. Grafting-instrument. (Antedated Nov. 11, 1871).....	Nov. 21, 1871
122,293	Wager, James, Troy, N. Y. Heating-stove.....	Dec. 26, 1871
116,649	Wagner, Alfred H., assignor to self, William J. Randolph, Levi Day, and Adam Harshberger, Prairie City, Ill. Lathe-chuck.....	July 4, 1871
112,750	Wagner, Ausbert H., Chicago, Ill. Harvester.....	Mar. 14, 1871
115,791	Same.....Grist-mill.....	June 6, 1871
118,655	Same.....Folding sewing-machine table.....	Aug. 29, 1871
114,730	Wagner, Daniel, and William K. Bushnell, Titusville, Pa. Elevating-truck.....	May 9, 1871
115,913	Wagner, Ernest F., Houston, Tex. Carriage-axle.....	June 13, 1871
112,991	Wagner, Franz, New York, N. Y. Apparatus for converting reciprocating into rotary motion.....	Mar. 21, 1871
112,992	Same.....Meter.....	Mar. 21, 1871
	Same.....(See Mueller, David, assignor.)	
	Wagner, Frederick J. S., et al. (See Young & Doll, assignors).....(Two cases.)	
111,888	Wagner, James K., Potsdam, N. Y. Clothes-drier. (Antedated Feb. 3, 1871).....	Feb. 14, 1871
115,396	Wagner, John, Lancaster County, Pa. Wagon-jack.....	May 30, 1871
116,242	Wagner, Michael, Cincinnati, Ohio. Pen.....	June 20, 1871
117,702	Wahlfelt, Fredrik, Sweden. Drill-bayonet.....	Aug. 1, 1871
121,558	Wahlgren, Charles E., Galesburgh, Ill. Culinary steamer.....	Dec. 5, 1871
116,119	Wahlstedt, Henry, Princeton, Ill. Wagon-seat.....	June 20, 1871
111,496	Waissnix, Michael and Alois, and Carl A. Specker, Austria. Machine for preparing wood-pulp.....	Jan. 31, 1871
	Wait, Justin B. (See Scofield, Levi, assignor).....(Two cases.)	
118,307	Wait, Philip H., Sandy Hill, N. Y. Water wheel and gate.....	Aug. 22, 1871
116,376	Wait, Thomas B., Zena, Oreg. Portable power-press.....	June 27, 1871
114,373	Waite, Enoch, assignor to self and Francis B. Ray, Franklin, Mass. Fabric from waste leather.....	May 2, 1871
120,801	Waite, John E., Hatfield, Mass. Transplanter.....	Nov. 7, 1871
114,731	Waite, George L., Philadelphia, Pa. Sliding-door and sash-guide. (Antedated April 27, 1871).....	May 9, 1871
112,518	Waite, George W., assignor to self and Robert B. Fitts, Philadelphia, Pa. Wheat-roaster.....	Mar. 7, 1871
114,891	Same.....Roasted wheat.....	May 16, 1871
	Waite, George W., et al. (See Fitts, R. Berkeley, assignor).....(Three cases.)	
112,658	Wakefield, Charles A., Pittsfield, Mass. Wire-fence.....	Mar. 14, 1871
115,256	Same.....Earth-closet.....	May 23, 1871
115,914	Same.....Lubricating-arrangement for axles of wagons.....	June 13, 1871
	Same.....(See Vining, Philomela T., assignor.)	
	Wakefield, Cyrus, et al. (See Aldrich & Spaulding, assignors.)	
119,903	Wakelee, Charles H., San Francisco, Cal. Drier.....	Oct. 10, 1871
	Wakeley, Charles T., and Charles A. Whelan. (See Whelan & Wakeley.)	
111,099	Walch, Blase, Frederick, Md. Auger.....	Jan. 17, 1871
	Walcheid, Christian A. (See Richardson, Frederic W., assignor.)	
119,207	Walcott, Edward, Natick, Mass. Shoe.....	Sept. 19, 1871
	Walcott, Elbridge, and Jonas C. Young. (See Bellamy, John H., assignor.) (Design.)	
	Waldbillig, Anton F. (See Wellschmidt, Adam, assignor.)	
117,490	Waldmann, Adolph, Philadelphia, Pa. Tournure.....	July 25, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,704	Waldo, Albert G., Milwaukee, Wis. Millstone bale and driver	Feb. 7, 1871
115,792	Same.....Friction brake or clutch.....	June 6, 1871
	Waldron, George F., and Robert F. Fisher. (<i>See Fisher & Waldron.</i>)	
	Wales, Elisha L., and William F. Prusha. (<i>See Prusha & Wales.</i>)	
113,117	Wales, Joseph, New York, N. Y. Candle-molding machine.....	Mar. 28, 1871
117,703	Walker, Albion K. P., Richmond, Me. Watchmakers' chuck	Aug. 1, 1871
111,497	Walker, Amasa K., Hampden, Me. Fly-exterminator	Jan. 31, 1871
120,351	Walker, Benjamin L., Sing Sing, N. Y. Holder for screw-cutting dies.....	Oct. 24, 1871
117,030	Walker, Dwight F., Minneapolis, Minn. Paneling-machine	July 11, 1871
120,405	Same.....Panel-raising machine.....	Oct. 31, 1871
121,559	Walker, Edward L., Twin Grove, Wis. Butter-worker.....	Dec. 5, 1871
121,695	Walker, Felix, New Orleans, La. Sash-holder	Dec. 5, 1871
	Walker, Francis G., <i>et al.</i> (<i>See Jackson, Richard A., assignor.</i>)	
118,308	Walker, George A., Boston, Mass. Paper-cutting machine	Aug. 22, 1871
118,309	Walker, George S., Erie, Pa. Animal-trap	Aug. 22, 1871
113,118	Walker, George S., assignor to self and Frank F. Adams, Erie, Pa. Washing-machine	Mar. 28, 1871
112,993	Walker, George W., Boston, Mass. Cooking-stove.....	Mar. 21, 1871
113,952	Same.....Cooking-range	April 18, 1871
4,540	Same.....Malden, Mass. Cooking-stove.....(<i>Reissue.</i>)	Aug. 29, 1871
120,406	Same.....Boston, Mass. Hot-air furnace. (<i>Antedated Oct. 27, 1871.</i>)	Oct. 31, 1871
4,477	Walker, Henry Balen, assignor to William Augustus Walker, New York, N. Y. Silvering glass for mirrors and reflectors.....(<i>Reissue.</i>)	July 18, 1871
116,650	Walker, Isaac P., Milwaukee, Wis. Baling-press	July 4, 1871
113,822	Walker, James, and Henry F. Lilly, Philadelphia, Pa. Lifter for spittoons, &c.....	April 18, 1871
112,870	Walker, James C., Farmington, Mich. Combined potato planter and digger.....	Mar. 21, 1871
112,097	Walker, John, Philadelphia, Pa. Proportional scale for the construction of toothed gear	Feb. 21, 1871
117,129	Walker, John, assignor to Levi Chubbuck, Boston, Mass. Chimney-cowl	July 18, 1871
121,437	Walker, John C., and William Lapish, Burlington, Wis. Bed-bottom	Nov. 28, 1871
	Walker, John F., <i>et al.</i> (<i>See Frey, John A., assignor.</i>)	
111,281	Walker, John T., Brooklyn, N. Y. Salt-cellar.....	Jan. 24, 1871
115,138	Walker, Leander, Victoria, Tex. Cultivator	May 23, 1871
	Walker, P. H. (<i>See Atwood, Leonard, assignor.</i>)	
113,226	Walker, Thomas M., Bellefontaine, Ohio. Flour-bolt	Mar. 28, 1871
110,699	Walker, William, assignor to George H. Wooster, Brooklyn, N. Y. Plaiting-device for sewing-machines	Jan. 3, 1871
	Wall, Charles L., and John Brady. (<i>See Brady & Wall.</i>)	
120,134	Wall, Cornelius A., Grand Rapids, Mich. Card-rack	Oct. 17, 1871
	Wall, James F., and Bernard J. Magee. (<i>See Magee & Wall.</i>)	
118,498	Wallace, Benjamin D., Boston, Mass. Scroll-saw	Aug. 29, 1871
	Wallace, Casper D., and James Moran. (<i>See Moran & Wallace.</i>)	
111,993	Wallace, Edwin R., Jonesville, S. C. Baling-press.....	Feb. 21, 1871
114,069	Wallace, John Murray, assignor to Bernhard Weber, New York, N. Y. Re-coloring fabrics	April 25, 1871
115,397	Wallace, Thomas, Chicago, Ill., and George Warren Hyde, Joliet, Ill. Smut-machine	May 30, 1871
114,732	Wallace, William K., Crawfordsville, Ind., and Edward C. Rutledge, Shannon-dale, Ind. Car-coupling.....	May 9, 1871
116,778	Wallace, William V., New York, N. Y. Ink-fountain for printing-presses	July 4, 1871
	Waller, Henry and W. S. (<i>See Prosser, T. T., assignor.</i>)	
	Waller, Henry, <i>et al.</i> (<i>See Prosser, T. T., assignor.</i>).....(<i>Two cases.</i>)	
115,995	Wallet, William A., and Isaac Harbaugh, West Salem, Ohio. Pruning-shears	June 13, 1871
	Wallich, Charles, <i>et al.</i> (<i>See Eley, Philip, assignor.</i>)	
115,793	Wallis, Benjamin, Baltimore, Md. Brick-kiln	June 6, 1871
116,120	Wallis, John N. and Theodore, assignors of one-third interest to Henry G. Wise, Fleming, N. Y. Harvester-dropper.....	June 20, 1871
	Wallis, Theodore, <i>et al.</i> (<i>See Doan, Wallace & Moreland.</i>)	
114,995	Walmer, Henry, Lebanon, Pa. Wagon-brake.....	May 16, 1871
111,889	Walpole, Michael, Milford, Mass. Pincers for shoemakers. (<i>Antedated Feb. 4, 1871.</i>)	Feb. 14, 1871
118,831	Walrath, Aaron H., Pamela Four Corners, N. Y. Bob-sled.....	Sept. 12, 1871
115,915	Walsh, Edward F., and Sanford Duryea, Brooklyn, N. Y. Writing-ink.....	June 13, 1871
121,917	Walsh, Cornelius, Newark, N. J. Broiler	Dec. 12, 1871
114,996	Walsh, James, Philadelphia, Pa. Hydrant	May 16, 1871
115,794	Same.....Stop-valve	June 6, 1871
111,282	Walsh, John, Galena, Ill. Millstone-balance.....	Jan. 24, 1871
111,156	Walsh, John E., New York, N. Y. Coffor-dam.....	Jan. 24, 1871
111,157	Same.....same	Jan. 24, 1871
113,374	Same.....same	April 4, 1871
120,352	Same.....same	Oct. 24, 1871
	Walsh, Robert F. (<i>See Fisher, John C., assignor.</i>)	
	Walsh, Samuel A. (<i>See Keen, Morris L., assignor.</i>).....(<i>Four cases.</i>)	
122,204	Walsh, William E., Jersey City, N. J. Feed-water heater.....	Dec. 26, 1871
	Walsh, William J. (<i>See Ritchie, James, assignor.</i>)	
	Walter, George B. (<i>See Hall, Isaac, assignor.</i>)	
	Walter, George F., and Henry H. Rogers. (<i>See Rogers & Walter.</i>)	
	Walters, A. J. (<i>See Owen & Lilley, assignors.</i>)	
113,953	Walters, George, assignor to Phoenix Iron Company, Phoenixville, Pa. Turn-table	April 18, 1871
113,710	Walters, James Monroe, Schwenksville, Pa. Wagon-spindle.....	April 11, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
12,871	Walters, John, assignor to William O. Hickok, Norfolk, Va. Hand-stamp	Mar. 21, 1871
	Walters, J. Blake. (<i>See</i> Ale, Ezra, assignor.)	
116,514	Walton, Benjamin F., Philadelphia, Pa. Bed-lounge	June 27, 1871
111,100	Walton, Frederick, England. Manufacture of artificial leather	Jan. 17, 1871
	Walton, Joseph J. (<i>See</i> Gilliss, James H., assignor.)	
118,832	Walton, Lucius A., assignor to self and Dougle McIntire, Byhalia, Miss. Auto- matic fan	Sept. 12, 1871
115,547	Walton, Robert A., Shawneetown, Ill. Medicine for the cure of diarrhoea	May 30, 1871
120,685	Walton, William E., assignor to self, George J. Naylor, and Charles G. Boeken- kamp, Chester, Pa. Liquid-measure	Nov. 7, 1871
4,801	Walton, William H., Brooklyn, N. Y. Printed material for aprons.... (Design) ..	April 11, 1871
4,802	Same.....Printed material for gored skirts	April 11, 1871
111,283	Wambach, William, Indianapolis, Ind. Bee-hive	Jan. 24, 1871
	Wandell, Livingston W., and Finley J. Wright. (<i>See</i> Wright & Wandell.)	
114,733	Wands, John C., Nashville, Tenn. Metallic roofing	May 9, 1871
121,438	Same.....same	Nov. 28, 1871
113,600	Wanich, Alexander, Philadelphia, Pa. Balance-valve	April 11, 1871
113,601	Wansleben, William A., Washington, D. C. Combined thimble and locket	April 11, 1871
114,997	Warburton, William F., Philadelphia, Pa. Tobacco-pipe	May 16, 1871
	Same.....(<i>See</i> Luckenbach, Henry and George, assignors.)	
111,498	Ward, John F., Jersey City, N. J. Mode of laying pipes across rivers	Jan. 31, 1871
	Ward, John S., Plattsburgh, Mo. Churn	Dec. 5, 1871
112,098	Ward, Joseph, Honeoye Falls, N. Y. Whiffletree	Feb. 21, 1871
116,121	Ward, Lewis, Poughkeepsie, N. Y. Lamp-chimney cleaner	June 20, 1871
117,130	Same.....Griddle-greaser	July 18, 1871
118,761	Ward, Matthew, Mount Carmel, Pa. Pulley	Sept. 5, 1871
118,078	Ward, Moses N., assignor to self and Franklin Friend, Somerville, Mass. Lubri- cating-apparatus for steam-engines	Aug. 15, 1871
121,223	Ward, Peter M., Cow Run, Ohio. Drill-bit and reamer	Nov. 21, 1871
118,499	Ward, Sylvanus, Westfield, N. Y. Boot and shoe heel gauge	Aug. 29, 1871
115,398	Ward, Thomas, Columbus, Ohio, and Henry C. Hunt, Chicago, Ill. Vapor- burner	May 30, 1871
111,994	Ward, William G., Edgewater, N. Y. Breech-loading fire-arm	Feb. 21, 1871
119,482	Ward, William Henry, Auburn, N. Y. Rotary pump	Oct. 3, 1871
119,483	Same.....Rotary steam-engine	Oct. 3, 1871
119,484	Same.....same	Oct. 3, 1871
121,561	Same.....Telegraph-signal	Dec. 5, 1871
	Warden, Americus. (<i>See</i> Fricker, Jacob, assignor.)	
110,806	Warden, William G., Philadelphia, Pa. Apparatus and process for distilling oil ..	Jan. 3, 1871
110,942	Same.....Vessel for carrying liquid cargoes	Jan. 10, 1871
112,751	Same.....Apparatus for distilling petroleum and other liquids	Mar. 14, 1871
120,353	Same.....Vessel for carrying liquid cargoes	Oct. 24, 1871
121,562	Wardwell, Charles P. S., Lake Village, N. H. Method of riveting latch knit- ting-needles	Dec. 5, 1871
121,828	Wardwell, Simon W., jr., assignor of one-half interest to George W. Shaw, Saint Louis, Mo. Table and treadle for sewing-machines	Dec. 20, 1871
113,119	Ware, Edmund R., assignor to William A. S. and Robert L. Smyth, Worcester, Mass. Men's gaiter	Mar. 28, 1871
114,734	Ware, Joseph E., Saint Louis, Mo. Furnace for reducing ores	May 9, 1871
122,085	Ware, Preston, jr., Boston, Mass. Boot and shoe	Dec. 19, 1871
117,836	Ware, William H., Philadelphia, Pa. Apparatus for rectifying spirits	Aug. 8, 1871
	Warfield, Alexander. (<i>See</i> Johnson, Ezra A., assignor.)	
	Waring, Daniel H. (<i>See</i> McGowan, James, assignor.)	
110,700	Waring, William C., Yonkers, N. Y. Alarm-attachment for machines for form- ing hat-bodies	Jan. 3, 1871
117,580	Wark, David, Montreal, Canada. Movement-cure apparatus	Aug. 1, 1871
114,998	Warne, Mahlon, Philadelphia, Pa. Ice-creper	May 16, 1871
120,471	Same.....Support and advertising medium for street-cars	Oct. 31, 1871
110,701	Warner, Alexander, Brooklyn, E. D., N. Y. Heel-tap for boots and shoes	Jan. 3, 1871
4,642	Warner, Almon, assignor through mesne assignments to Elihu Hall & Co., Hampden, Conn. Hub for carriage-wheels	Nov. 21, 1871
	Warner, Bennet B., and William Coggeshall. (<i>See</i> Coggeshall & Warner.) (Ex- tension.)	
111,284	Warner, De Witt C., Chicago, Ill. Nutmeg-grater	Jan. 24, 1871
111,406	Same.....Combined coffee-mill and apple-parer	Jan. 31, 1871
121,796	Warner, Francis F., and James W. Benham, Chicago, Ill. Station-indicator	Dec. 5, 1871
119,485	Warner, Gustavus A., San Francisco, Cal. Grape-picker	Oct. 3, 1871
118,656	Warner, Henry W., Greenfield, Mass. Children's carriage	Aug. 29, 1871
115,139	Warner, Horace, Ridgeway, Pa. Washing-machine	May 23, 1871
	Warner, Horace H., and George A. Jones. (<i>See</i> Jones & Warner.)	
	Warner, Isaac H., and Benjamin F. Stover. (<i>See</i> Stover & Warner.)	
	Warner, John. (<i>See</i> Van Auken, Miner, assignor.)	(Reissue.)
119,673	Warner, Martin P., and Edwin W. Payne, Morrison, Ill. Combined latch and lock	Oct. 3, 1871
121,264	Warner, Norman, Jasper County, Ind. Machine for cutting wedges	Nov. 23, 1871
	Warner, Westford. (<i>See</i> Downing & Soley, assignors.)	
4,745	Warner, William R., assignor to William R. Warner & Co., Philadelphia, Pa. Glass bottle	Mar. 28, 1871
	Warnock, David A., and William R. Wright. (<i>See</i> Wright & Warnock.)	
112,397	Warren, Alvin, Swanton, Ohio. Cooking-stove	Mar. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,135	Warren, Andrew W., Annapolis, Md. Spool-holder.....	Oct. 17, 1871
116,897	Warren, David H., Montreal, Canada. Manufacture of soap.....	July 11, 1871
4,461	Warren, Edward, Ceresco, Mich. Hoe..... (Reissue) ..	July 4, 1871
116,898	Warren, Edward, assignor to self, Isaac S., Silas, and William B. Peters, Ceresco, Mich. Thill-coupling	July 11, 1871
4,730	Warren, Edwin S., Springfield, Mass. Sword..... (Design) ..	Mar. 21, 1871
111,890	Warren, George Allen, North Bridgewater, Mass. Joiners' plane	Feb. 14, 1871
115,996	Warren, George B., Prospect, Pa. Gun-lock.....	June 13, 1871
117,704	Warren, John, assignor to self and John C. Chapman, Weston, Mass. Valve.....	Aug. 1, 1871
113,823	Warren, John S., Hudson, N. Y. Water-wheel.....	April 18, 1871
117,021	Warren, Luther, Dwight, Ill. Three-horse equalizer.....	July 11, 1871
121,142	Warren, Nelson, Wilmington, Del. Door-lock. (Antedated Nov. 4, 1871).....	Nov. 21, 1871
121,027	Warren, Nelson, and James C. Stock, Wilmington, Del. Wrench. (Antedated Oct. 23, 1871).....	Nov. 14, 1871
121,563	Warren, Nelson, and Thomas Underwood, Wilmington, Del. Jump-seat. (Antedated Nov. 18, 1871).....	Dec. 5, 1871
117,705	Warren, Oliver B., and Theodore J. Dickerson. (See Dickerson & Warren.) Warren, Samuel H., and William H. Defrees, Newtonville, Mass. Machine for removing runners from strawberry-vines.....	Aug. 1, 1871
115,795	Warren Van Ransselaer. (See Lamb, Daniel Martin, assignor.)	
116,243	Warren, William H., Worcester, Mass. Slotting-machine	June 6, 1871
113,824	Same..... Metal-planer	June 20, 1871
111,995	Warner, William H., assignor to Aurin Wood and Joseph F. Light, Worcester, Mass. Shaping-machine	April 18, 1871
112,752	Warren, William M., Watertown, Conn. Sash-holder	Feb. 21, 1871
112,753	Warth, Albin, Stapleton, N. Y. Machine for cutting textile and other materials.....	Mar. 14, 1871
114,999	Same..... Fastening for textile fabrics.....	Mar. 14, 1871
4,403	Same..... Machine for pitching casks and barrels.....	May 16, 1871
4,404	Same..... Tap for oil-packages	May 30, 1871
116,244	Same..... same..... (Division A, reissue) ..	May 30, 1871
116,245	Same..... Tap for liquid packages	June 20, 1871
111,407	Same..... same..... (Division B, reissue) ..	June 20, 1871
111,794	Warwick, Richard C., New York, N. Y. Printing-press.....	Jan. 31, 1871
111,996	Wash, William H., Howardsville, Va. Smut and wheat separating machine. (Antedated Feb. 1, 1871).....	Feb. 14, 1871
120,802	Washbourne, Frank, assignor to Steele & Johnson Button Company, Brooklyn, N. Y. Pressed-nut blank	Feb. 21, 1871
114,235	Washburn, Charles F., San Francisco, Cal. Medical compound for the cure of rheumatism	Nov. 7, 1871
112,302	Washburn, David W., Brewer, Me. Guide for circular saws	April 25, 1871
116,246	Washburn, Harvy, Pultney, N. Y. Plow	Feb. 28, 1871
110,702	Washburn, Nathan, Worcester, Mass. Mold for casting car-wheels	June 20, 1871
121,829	Washburn, Oliver C., assignor to Thomas Potter, Philadelphia, Pa. Drying oil-cloth and similar fabrics.....	Jan. 3, 1871
113,375	Washington, Dillingham C., and Daniel Arndt. (See Arndt & Washington.)	
113,602	Waterbury, Wm. M., assignor of two-thirds interest to John A. Cooke, New York, N. Y. Hat-sweat from water-proof paper.....	Dec. 12, 1871
4,251	Waterbury, William W. and John M., New Canaan, Conn. Sawing-machine...	April 4, 1871
119,255	Waterman, Asa, Providence, R. I. Smoke-house.....	April 11, 1871
116,651	Waterman, Henry, Williamsburgh, N. Y. Harvester..... (Reissue) ..	Jan. 31, 1871
110,703	Same..... Brooklyn, E. D., N. Y. Propulsion of vessels.....	Sept. 26, 1871
4,462	Waterman, Isaac, London, Canada. Cement for coating oil barrels and tanks ..	July 4, 1871
4,463	Waterman, N. (See Sutton and Milink, assignors.)	
117,837	Waters, Charles, Boston, Mass. Governor for steam-engines.....	Jan. 3, 1871
121,830	Waters, Charles H., assignor to the Clinton Wire-Cloth Company, Groton, Mass. Machine for painting wire-cloth..... (Division A, reissue) ..	July 4, 1871
4,803	Same..... Method of painting wire-cloth..... (Division B, reissue) ..	July 4, 1871
114,498	Waters, Charles H., Groton, Mass., and William Orr, jr., Clinton, Mass., assignors to the Clinton Wire-Cloth Company. Shuttle for weaving wire-cloth.....	Aug. 8, 1871
114,735	Same..... Loom-shuttle.....	Dec. 12, 1871
115,000	Waters, Frank, assignor to Thomas W. Starr, Philadelphia, Pa. Hand-stamp. (Design).....	April 11, 1871
4,394	Waters, Hervey, Boston, Mass. Machine for rolling hoe-blanks	May 2, 1871
121,918	Same..... Guiding and gauging mechanism for roller-dies	May 9, 1871
118,500	Same..... Lathe for cutting grooves in metal-rollers.....	May 16, 1871
114,236	Same..... Manufacture of bayonets and apparatus therefor..... (Reissue) ..	May 23, 1871
119,099	Waters, Zera, and Sylvester Bradley, Bloomington, Ill. Pump	Dec. 12, 1871
121,919	Watkins, Edward, and Andrew McConnell, Philadelphia, Pa. Folding-chair...	Aug. 29, 1871
118,079	Watkins, Francis, England. Bale-tie.....	April 25, 1871
120,917	Watkins, Gardner A., Gardner, Mass. Preparing rattan for chair-seats, &c	Sept. 19, 1871
111,408	Same..... same.....	Dec. 12, 1871
111,409	Watkins, Gardner A., assignor to the American Chair-Seat Company, Cavedish, Vt. Chair-seat	Aug. 15, 1871
111,410	Watkins, Miles S., Memphis, Tenn. Fire-place grate.....	Nov. 14, 1871
111,411	Watkins, William B., Jersey City, N. J. Telegraphic protection for safes, vaults, and buildings.....	Jan. 31, 1871
1	Same..... Burglar-alarm and police-telegraph.....	Jan. 31, 1871
1	Same..... Fire-alarm telegraph	Jan. 31, 1871
1	Same..... same.....	Jan. 31, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,412	Watkins, William B., Jersey City, N. J. Fire-alarm telegraph.....	Jan. 31, 1871
111,413	Same..... same.....	Jan. 31, 1871
113,120	Same..... Means for detecting and signaling fires.....	Mar. 23, 1871
121,439	Watkins, William M., Talcott, Va. Cultivator.....	Nov. 23, 1871
117,838	Watrous, James A., Green Spring, Ohio. Apparatus for suspending eaves-troughs..... (Extension).....	Aug. 25, 1871
121,028	Watrous, Richard N., assignor to self and W. W. Kellogg, Elmira, N. Y. Con-struction of dies for forming the lips of auger-bits.....	Aug. 8, 1871
111,414	Watson, Andrew J., Lyons Township, Mich. Planing-machine.....	Nov. 14, 1871
111,022	Watson, Charles Thompson, Deerfield, Mich. Stave-sawing machine.....	Jan. 31, 1871
112,754	Watson, Jeremiah M., Sharon, Mass. Shank-piece for boots and shoes.....	Jan. 17, 1871
	Watson, Jeremiah Mears, assignor to self and Horace A. Lothrop, Sharon, Mass. Wooden shank for shoes and boots.....	Mar. 14, 1871
113,954	Watson, John, and Thomas Cook. (See Cook & Watson.).....	
117,226	Watson, Lewis H., Pittsburgh, Pa. Barrel-filler.....	April 18, 1871
118,310	Same..... Shutter-worker.....	July 13, 1871
	Watson, Peter B., assignor to self and Moses A. Dewitt, Belvidere, N. J. Hame for harness.....	Aug. 22, 1871
114,628	Watson, Peter H., Ashtabula, Ohio. Car-wheel.....	May 9, 1871
121,265	Watson, Thomas, Nevada, Cal. Nozzle.....	Nov. 23, 1871
116,899	Watson, Walter, Fayetteville, N. C. Umbrella.....	July 11, 1871
121,070	Watson, Wiley, Visalia, Cal. School desk and seat.....	Nov. 21, 1871
4,220	Watson, William Medd, Tonica, Ill. Blank for and die for making mold-boards for plows..... (Reissue).....	Jan. 3, 1871
	Watt, J. H., J. W., and Stewart. (See Rogers, Silas P., assignor.).....	
113,711	Watt, Stewart, Barnesville, Ohio. Stove-utensil holder.....	April 11, 1871
117,839	Watt, William M., Como, Miss. Peg-cutter.....	Aug. 8, 1871
121,564	Watteau, Jules, Belgium. Bleaching wool.....	Dec. 5, 1871
121,565	Same..... Machine for pulling wool from skins.....	Dec. 5, 1871
112,303	Wattles, Hiram J., Rockford, Ill. Clothes-pin..... (Antedated Feb. 25, 1871).....	Feb. 23, 1871
121,303	Wattles, Hiram J., assignor to Henry W. Price, Rockford, Ill. Clothes-pin. (Antedated Nov. 16, 1871).....	Nov. 23, 1871
121,029	Watts, David H., assignor to self and W. C. Sharpless, Philadelphia, Pa. Tile.....	Nov. 14, 1871
118,564	Watts, Elias, Key Port, N. J. Corn-shaving machine.....	Aug. 20, 1871
4,587	Watts, John, assignor to Harvey & Ford, Philadelphia, Pa. Stem of a tobacco-pipe..... (Design).....	Jan. 17, 1871
122,086	Watts, Joseph E., Lawrence, Mass. Steam-trap.....	Dec. 19, 1871
110,943	Watts, William, and Frederick A. Phelps, Newark, N. J. Cut-off for steam-engines.....	Jan. 10, 1871
4,676	Wauchope, William J., Brookfield, Ill. Ditching and grading machine. (Reissue).....	Dec. 12, 1871
4,433	Waud, Edward, assignor of part interest to Benjamin F. Dorris, Eugene City, Oreg. Spark-arrester..... (Reissue).....	June 20, 1871
118,565	Waugh, John P., South Scriba, N. Y. Head-rest for coffins.....	Aug. 29, 1871
	Way, Cornelius B., et al. (See Hinsdell, Drake & Way.).....	
	Way, David F. (See Lewis, William, assignor.).....	
116,247	Way, Henry O., Thorntown, Ind. Flood-gate. (Antedated June 15, 1871).....	June 20, 1871
116,652	Way, Lyman I., Annawan, Ill. Insect-trap.....	July 4, 1871
111,158	Way, Seth, La Porte, Ind. Plow-colter.....	Jan. 24, 1871
	Wayne, Benjamin P., et al. (See Deitz, Wayne & Stone.).....	
118,171	Wayne, Joseph B., England. Breech-loading fire-arm.....	Aug. 15, 1871
114,237	Weaber, Adam, assignor to self and L. L. Heiks, Lebanon, Pa. Plow.....	April 25, 1871
121,566	Weakley, Jeremiah A., Indianapolis, Ind. Cooking-stove.....	Dec. 5, 1871
116,515	Weare, Robert, England. Treating sewage.....	June 27, 1871
113,603	Weatherbee, Ephraim D., Worcester, Pa. Bottle-fastening.....	April 11, 1871
113,227	Weatherbee, Paul, Port Washington, Ohio. Washer and wringer.....	Mar. 23, 1871
112,398	Weatherhead, James, San José, Cal. Safety-bridle.....	Mar. 7, 1871
112,099	Weathers, James, Greensburgh, Ind. Wheel for vehicles.....	Feb. 21, 1871
121,030	Same..... Wagon-jack.....	Nov. 14, 1871
	Weaver, George S. (See Ellis, Henry A., assignor)..... (Two cases.).....	
117,581	Weaver, Henry S., Irwin Station, Pa. Axle-lubricator.....	Aug. 1, 1871
116,248	Weaver, Horatio B., Hartford, Conn. Governor for steam-engines.....	June 20, 1871
111,591	Weaver, John E., Lancaster, Pa. Railway-car brake. (Antedated Feb. 4, 1871).....	Feb. 7, 1871
116,122	Weaver, John H., Gap, Pa. Grain-cleaner.....	June 20, 1871
	Weaver, Philip D., and William F. Kline. (See Kline & Weaver.).....	
113,228	Weaver, Samuel, Pottstown, Pa. Composition for treating iron.....	Mar. 23, 1871
117,706	Weaver, Theophilus, Harrisburgh, Pa. Spherical gears.....	Aug. 1, 1871
111,795	Weaver, William, Greenwich, N. Y. Ash-sifter.....	Feb. 14, 1871
119,674	Same..... Mechanical movement.....	Oct. 3, 1871
117,022	Weaver, William, Phoenixville, Pa. Butter-worker.....	July 11, 1871
113,121	Webb, Benjamin, Unadilla Forks, N. Y. Horse-rake.....	Mar. 23, 1871
116,653	Webb, Edward, assignor to self, C. B. and Benjamin F. Ford, Norfolk, Va. Shoe-fastening.....	July 4, 1871
120,354	Webb, Jacob W., New Athens, Ohio. Combined seeder and cultivator.....	Oct. 24, 1871
117,582	Webb, James, jr., Portland, Me. Trimming-jack for shoes and boots.....	Aug. 1, 1871
120,803	Webb, John W. O., Vinton, Iowa. Heating-stove.....	Nov. 7, 1871
120,840	Same..... Cedar Rapids, Iowa. Cooking-stove.....	Nov. 14, 1871
119,804	Webb, Rice, Star Prairie, Wis. Sleigh.....	Oct. 10, 1871
	Webb, Robert. (See Burdett, Oliver H., assignor.).....	
116,516	Webb, Thomas N., Baltimore, Md. Table for invalids.....	June 27, 1871
118,080	Same..... Curtain-fixture.....	Aug. 15, 1871
118,081	Same..... same.....	Aug. 15, 1871
122,294	Same..... same.....	Dec. 26, 1871
	Same..... (See Greentree, Hiram, assignor.).....	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,696	Webb, William George, assignor to William Langdon Libbey, England. Ornamentation of glass.....	Dec. 5, 1871
119,435	Webb, William J., Philadelphia, Pa. Roach and mouse trap.....	Sept. 26, 1871
113,229	Webb, William W., Indianapolis, Ind. Blower.....	Mar. 28, 1871
122,087	Webber, Alanson P., Saratoga Township, Ill. Plow-fender.....	Dec. 19, 1871
116,123	Webber, David, Houlton, Me. Rounder for reins.....	June 20, 1871
116,124	Same..... Buckle.....	June 20, 1871
116,377	Webber, Eldridge, assignor of one-half interest to George W. Colburn, Gardiner, Me. Machine for sapping logs for clap-boards.....	June 27, 1871
	Weber, Bernhard. (See Wallace, John Murray, assignor.)	
121,831	Weber, Frederick C. C., Brooklyn, N. Y. Machine for making wire-netting....	Dec. 12, 1871
111,285	Weber, John Jacob, Saint Clair, Pa. Elevator.....	Jan. 24, 1871
116,378	Webster, Albert W., Ansonia, Conn. Button-hole guide-plate.....	June 27, 1871
116,900	Webster, Benjamin, Kingfield, Me. Stove-pipe drum.....	July 11, 1871
118,082	Webster, George A., assignor to self and Dean S. Webster, Elgin, Ill. Electro-magnetic billiard-game register.....	Aug. 15, 1871
117,491	Webster, George P., jr., Cross Bridge, Tenn. Cotton and hay press.....	July 25, 1871
119,548	Webster, John B., Saint Louis, Mo. Refrigerator.....	Aug. 3, 1871
4,717	Webster, John T., assignor to Daniel M. and Charles A. Read, New York, N. Y. Carpet-pattern.....	Mar. 14, 1871
5,058	Webster, John T., assignor to Page, Wilder & Co., Yonkers, N. Y. Floor oil-cloth.....	June 27, 1871
5,059	Same..... Floor oil-cloth.....	June 27, 1871
5,243	Webster, John T., assignor to Thomas Potter, Son & Co., Yonkers, N. Y. Oil-cloth.....	Aug. 29, 1871
117,707	Webster, Lewis T., Northfield, Mass. Gang-plow.....	Aug. 1, 1871
120,602	Webster, Ora, Murray, N. Y. Gaveling-fork for harvesters.....	Nov. 7, 1871
110,704	Webster, William W., Chelsea, Mass. Constructing moldings of paper.....	Jan. 3, 1871
120,472	Weddington, Samuel C., Jonesborough, Ind. Permutation-lock.....	Oct. 31, 1871
114,499	Wedekind, Gustavus A., and Helmuth Dneberg, Baltimore, Md. Kiln.....	May 2, 1871
119,805	Weed, James, Muscatine, Iowa. Shutter for hot-beds, &c.....	Oct. 10, 1871
115,399	Weed, Otis H., Boston, Mass. Carpet-sweeper.....	May 30, 1871
	Weed Sewing-Machine Company. (See Fairchild, George A., assignor.)	
	Weeden, William B., et al. (See Taft, Weeden & Taft).....	(Design.)
5,364	Weeden, William N., assignor to William B. Gorham, Boston, Mass. Hand-stamp.....	Nov. 14, 1871
110,880	Weeks, George H., Allegan, Mich. Car-coupling.....	Jan. 10, 1871
121,031	Weeks, George W., Clinton, Mass. Loop-banding machine.....	Nov. 14, 1871
	Weeks, Merrick C., et al. (See Hindman & Matthews, assignors).....	(Design.)
	Weeks, William H. (See Mayhew, Oscar F., assignor.)	
115,257	Wegner, Charles G., Philadelphia, Pa. Handle for shoemakers' tools.....	May 23, 1871
118,657	Wegscheider, Constantine, and Pietro Bonetti, Austria. Steam-engine for screw-propeller vessels.....	Aug. 29, 1871
	Wehme, Henry. (See Wihl, David, assignor).....	(Two cases.)
112,872	Wehrle, Jacob, and William Wittlinger, Cincinnati, Ohio. Vegetable-grater ..	Mar. 21, 1871
112,755	Weicker, Henry W., assignor to self and George W. Miller, Woonsocket, R. I. Apparatus for vulcanizing rubber.....	Mar. 14, 1871
118,311	Weida, Peter W., Philadelphia, Pa. Sad-iron.....	Aug. 22, 1871
117,840	Weide, Alexander, Chicago, Ill. Hoisting-apparatus.....	Aug. 8, 1871
118,888	Weider, Reuben M., and Jacob Meals, Carthage, Ill. Fence.....	Sept. 12, 1871
122,295	Weidig, Charles, New Haven, Conn. Apparatus for setting boxes in carriage-hubs. (Antedated Dec. 12, 1871).....	Dec. 26, 1871
	Weidig, John, and Charles Yockel. (See Klineck, Frederick, assignor.)	
118,067	Weidley, Henry and David, Green, Pa. Wash-boiler.....	Sept. 19, 1871
	Weidner, Joseph. (See Peting, John F., assignor.)	
113,825	Weiler, Charles, assignor to Martin Landenberger & Co., Landenburgh, Pa. Comb for combing-machines.....	April 18, 1871
121,440	Weiller, Auguste, New York, N. Y. Breast-pin.....	Nov. 28, 1871
115,001	Weimar, Jacob, New York, N. Y. Safe-bolt.....	May 16, 1871
	Weimar, Jacob, and John Farrel. (See Farrel & Weimar.)	
	Weimer, Peter. (See Gebhard, Daniel, assignor.)	
112,756	Weimer, Peter L., Lebanon, Pa. Shutter-fastener.....	Mar. 14, 1871
4,834	Same..... Steam-engine.....	April 18, 1871
117,947	Same..... Tycere.....	Aug. 8, 1871
115,400	Weimer, Peter L., assignor to self, I. A. and L. E. Weimer, Lebanon, Pa. Steam-engine.....	May 30, 1871
118,566	Same..... Arched truss for bridges.....	Aug. 29, 1871
	Weinrich, L. (See Schroeder, Julius, assignor.)	
	Weir, James A. (See Higel, Frank, assignor.)	
4,489	Weir, William S., jr., Monmouth, Ill. Cultivator.....	July 25, 1871
4,610	Same..... same.....	Oct. 10, 1871
	Weiss, Albert, and Henry Sommer. (See Sommer & Weiss.)	
	Weiss, Charles M., et al. (See Renwick, Thomas R., assignor.)	
119,675	Weissenborn, Franz, Egg Harbor City, N. J. Shoemakers' jack.....	Oct. 3, 1871
	Weist, Samuel S. (See Baer, Benjamin F., assignor.)	
	Weitz, J. V., and Michael Groh. (See Groh & Weitz.)	
	Welch, E. B. (See Anders, George L., assignor).....	(Three cases.)
	Welch, E. N., Manufacturing Company. (See Tyler, Walter L., assignor.) (Design.)	
121,441	Welch, James H. and Rosia W., Georgetown, D. C. Hydraulic and pneumatic motor for sewing-machines.....	Nov. 28, 1871
118,991	Welch, John S., and Andrew A. Wheeler, Boston, Mass. Table and stand.....	Sept. 12, 1871
	Welch, Peter. (See Jones, Joseph, assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,312	Weld, Calvin J., Brattleborough, Vt. Washing-machine.....	Aug. 22, 1871
	Weld, Charles D. (See Jordan, William N., assignor.)	
118,411	Weld, Elwyn C., New York, N. Y. Apparatus for making ice.....	Aug. 22, 1871
119,904	Weld, Henry, Black Walnut, Ill. Cultivator.....	Oct. 10, 1871
112,994	Welden, Francis N., Rockford, Ill. Cultivator.....	Mar. 21, 1871
119,555	Weldon, James G., Pittsburgh, Pa. Hot-air furnace.....	Oct. 17, 1871
110,705	Welham, Thomas, Philadelphia, Pa. Saw. (Antedated Dec. 17, 1870).....	Jan. 3, 1871
115,140	Wellbrock, August H., Boston, Mass. Carriage-jack.....	May 23, 1871
115,141	Weller, George H., New Village, N. J. Harvester-rake.....	May 23, 1871
114,629	Weller, Henry S., Watertown, Conn. Mouse-trap.....	May 9, 1871
119,728	Weller, John B., Bellbrook, Ohio. Machine for setting buggy-tops.....	Oct. 10, 1871
118,762	Weller, Royal F., Albany, N. Y. Fire-grate.....	Sept. 5, 1871
	Welles, John H., et al. (See Breinig, David E., assignor.)..... (Reissue.)	
	Welles, Raymond M. (See Adgate, Joseph J., assignor.)	
120,174	Wellfare, John, and Fred. Champagne, Aurora, Ill. Feather-renovator.....	Oct. 24, 1871
112,399	Wellhouse, George, Akron, Ohio. Fire-grate.....	Mar. 7, 1871
4,825	Same.....Cooking-stove..... (Design).....	April 18, 1871
	Welling, William M., New York, N. Y. Factitious ivory..... (Extension).....	July 19, 1871
114,238	Wellington, Darius, Boston, Mass. Water-closet.....	April 25, 1871
	Wellons, William B., et al. (See Arnold, Roberson, assignor.)	
115,548	Wells, Charles S., assignor to self and William A. Brinie, Springfield, Mass. Cartridge.....	May 30, 1871
112,757	Wells, Edward, New Haven, Conn. Carriage-axle.....	Mar. 14, 1871
112,758	Same.....Landau-carriage.....	Mar. 14, 1871
115,665	Same.....Folding step for carriages.....	June 6, 1871
118,083	Same.....Handle for carriage-doors.....	Aug. 15, 1871
5,163	Wells, Edward, assignor to Wells, Cruttenden & Co., New Haven, Conn. Carriage-door handle..... (Design).....	Aug. 1, 1871
117,352	Wells, Ephraim B., New York, N. Y. Machine for cutting cloth.....	July 25, 1871
112,304	Wells, Gabriel J., assignor to John W. Snyder, South Vineland, N. J. Fruit-press.....	Feb. 28, 1871
111,997	Wells, George, Providence, R. I. Piston-packing.....	Feb. 21, 1871
114,736	Wells, Harvey L., Chillicothe, Mo. Churn-dasher.....	May 9, 1871
120,355	Wells, Henry M., New York, N. Y. Process of disinfecting buildings, ships, &c.....	Oct. 24, 1871
116,654	Wells, Isaac J., Willmar, Minn. Door-stop. (Antedated June 22, 1871).....	July 4, 1871
118,992	Wells, Joseph L., Philadelphia, Pa. Printing and ornamenting.....	Sept. 12, 1871
	Wells, Thomas F. (See Ott, Adolph, assignor.)	
113,412	Wells, William A., Adrian, Mich. Attachment for sewing-machines.....	Aug. 22, 1871
113,712	Wells, William A., Saint Paul, Minn., and Lyman P. Converse, Milwaukee, Wis. Wash-boiler.....	April 11, 1871
122,088	Wells, William T., Decatur, Ill. Hinge.....	Dec. 19, 1871
120,603	Wellschmidt, Adam, assignor to self and Anton F. Waldbillig, Albany, N. Y. Railway-car brake.....	Nov. 7, 1871
110,807	Welsh, Dwight F., Nevada, Ohio. Cotton-planter.....	Jan. 3, 1871
111,023	Same.....Cotton-chopper.....	Jan. 17, 1871
111,499	Welsh, John, Canton, Ohio. Door-lock.....	Jan. 31, 1871
112,659	Welsh, John H., Erie, Pa. Refrigerator.....	Mar. 14, 1871
119,208	Welteck, Bernhard, New York, N. Y. Kitchen table.....	Sept. 19, 1871
	Welter, James K., and Lewis H. Converse. (See Converse & Welter.)	
111,286	Wendell, Isaac P., assignor of one-half interest to Stephen P. M. Tasker, Philadelphia, Pa. Lubricator for railway-car axles.....	Jan. 24, 1871
111,287	Same.....Lubricator for railway-car boxes.....	Jan. 24, 1871
	Wendell, Isaac P., et al. (See Devlan, Patrick S., assignor.)	
116,379	Wendell, Wellington C., Philadelphia, Pa. Combined fastening and buffer for doors and shutters.....	June 27, 1871
120,136	Wenderoth, Frederick L., Philadelphia, Pa. Photography.....	Oct. 17, 1871
116,380	Wensley, James, Philadelphia, Pa. Presser-foot for sewing-machines.....	June 27, 1871
112,873	Wentworth, G. M. (See Lesner, Augustus S., assignor.)	
	Wentworth, Hebron Mayhew, Gardiner, Me. Machine for grinding carriage-springs.....	Mar. 21, 1871
111,891	Wentworth, William P., Seneca Falls, N. Y. Tip for wooden shovels.....	Feb. 14, 1871
118,658	Same.....Water-elevator.....	Aug. 29, 1871
118,993	Same.....Rotary engine.....	Sept. 12, 1871
111,592	Wentz, Christopher, Albert Green, and Orlando P. Conner, Trenton, N. J. Candy-cutting machine.....	Feb. 7, 1871
119,436	Werner, Ernst, Canton, Ill. Apparatus for distilling.....	Sept. 26, 1871
118,992	Werner, Julius, New York, N. Y. Sofa-bed.....	Sept. 12, 1871
117,353	Werst, Decatur, South Bend, Ind. Washing-machine.....	July 25, 1871
112,995	Wertebaker, Woodward E., Washington, D. C. Fuel and kindling-wood.....	Mar. 21, 1871
115,666	Wesche, Henry F. W., New York, N. Y. Gas-heater.....	June 6, 1871
117,354	Wescott, Henry H., Portland, Me. Needle and tool-holder for work-tables. (Antedated July 7, 1871).....	July 25, 1871
113,826	Wesley, George W., Meadville, Pa. Self-releasing clutch for water-wheels.....	April 18, 1871
114,374	Wesson, Daniel B., Springfield, Mass. Lock for double-barreled fire-arms.....	May 2, 1871
	Wesson, D. B., and Horace Smith. (See Dodge, William C., assignor.) (Reissue.)	
115,916	Wesson, Franklin, Worcester, Mass. Revolving fire-arm.....	June 13, 1871
5,060	Wesson, Martin, Springfield, Mass. Surcingle-fastening..... (Design).....	June 27, 1871
	West, Columbus. (See Hanna, Edmund S., assignor.)	
116,779	West, Elliott P., Jersey City, N. J. Feeding-mechanism for sewing-machines.....	July 4, 1871
117,708	Same.....Sewing-machine.....	Aug. 1, 1871
	West, J. D., East Orange, N. J. Pumps..... (Extension).....	Sept. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,998	West, James O., New York, N. Y. Hoop-skirt.....	Feb. 21, 1871
	West, Lucius M. (<i>See</i> Bennis, George, assignor.).....	
111,159	West, Samuel, assignor to Elmwood Mining and Manufacturing Company, Elmwood, Ill. Steam-generator.....	Jan. 24, 1871
112,519	West, Thomas J., Alfred Centre, N. Y. Plaster-sower.....	Mar. 7, 1871
117,492	West, William A., Bellefontaine, Ohio. Spark-arrester.....	July 25, 1871
110,706	West, William F., Haverstraw, N. Y. Seed-planter.....	Jan. 3, 1871
122,205	Westbrook, Abraham D., assignor to Fletcher W. Dickerman, Astoria, N. Y. Carriage-top prop-block washer.....	Dec. 26, 1871
118,763	Westcott, Asa A., assignor to George Draper, North Scituate, R. I. Step for spindles of spinning-machines.....	Sept. 5, 1871
115,796	Westcott, Charles S., assignor to Westcott's Type-Setting Company, Elizabeth, N. J. Type-composing and casting machine combined.....	June 6, 1871
112,660	Westcott, Henry P., Seneca Falls, N. Y. Anti-friction journal-box.....	Mar. 14, 1871
111,160	Westcott, Joseph H., Medford, Mass. Serving-reel.....	Jan. 24, 1871
122,296	Westermayr, Edward, Chicago, Ill. Composition-roof.....	Dec. 26, 1871
	Western Union Telegraph Company. (<i>See</i> Phelps, George M., assignor.).....	
	Same.....(<i>See</i> Page, Charles Grafton, assignor).....(Reissue.)	
115,667	Westinghouse, George, jr., Pittsburgh, Pa. Steam-power car-brake apparatus.....	June 6, 1871
115,668	Same.....Steam-engine valve and port.....	June 6, 1871
116,655	Same.....Valve device for steam-power air-brake couplings.....	July 4, 1871
117,841	Same.....Steam-power air-brake device.....	Aug. 8, 1871
122,996	Westlake, William, Chicago, Ill. Zinc-board for stoves.....	Mar. 21, 1871
118,084	Same.....Dust-pan.....	Aug. 15, 1871
119,549	Same.....Lantern.....	Oct. 3, 1871
119,550	Same.....Sprinkling-rose head.....	Oct. 3, 1871
119,676	Same.....Platform for stoves.....	Oct. 3, 1871
122,089	Same.....Wash-bowl.....	Dec. 19, 1871
	Westlake, William, assignor to self, James F. Dane, and John P. Covert, Chicago, Ill. Lantern.....(Disclaimer).....	April 29, 1871
4,601	Westlake, William, assignor through mesne assignments to self, James F. Dane, and John P. Covert, Chicago, Ill. Lantern.....(Reissue).....	
113,376	Weston, Adam, Keeseville, N. Y. Vote-recording machine.....	April 4, 1871
119,806	Weston, Charles W., San Francisco, Cal. Fruit-box.....	Oct. 10, 1871
119,677	Weston, David M., Boston, Mass. Clutch-mechanism.....	Oct. 3, 1871
113,955	Weston, Elijah, Buffalo, N. Y. Steam-generator.....	April 18, 1871
118,085	Weston, Oliver P., Shattuckville, Mass. Carriage-washing machine.....	Aug. 15, 1871
120,686	Weston, Thomas Aldridge, assignor to self and Franklin B. Colton, Ridgewood, N. J. Shaft-coupling. (Antedated Nov. 2, 1871).....	Nov. 7, 1871
115,669	Westworth, John, Chicago, Ill. Wood-carving machine.....	June 6, 1871
118,172	Wethered, Edwin R., England. Fire-escape.....	Aug. 15, 1871
118,995	Wetjen, Gefert H., New York, N. Y. Box for shoe-blackening.....	Sept. 12, 1871
111,161	Wetmore, Henry H., Barre, Vt. Mop-head. (Antedated Jan. 12, 1871).....	Jan. 24, 1871
4,938	Wetmore, Hiram P., Elizabeth, N. J. Drawers.....(Design).....	May 23, 1871
112,199	Wetmore, Jerome W., Erie, Pa. Fire-place.....	Feb. 23, 1871
117,493	Wetmore, Jerome W. and Cyrus Avery, Erie, Pa. Cut-off for rain-water pipes.....	July 25, 1871
120,013	Wetmore, John G., Winsted, Conn. Railway-car truck.....	Oct. 17, 1871
122,206	Wetmore, William Shepard, England. Spade-bayonet.....	Dec. 26, 1871
115,549	Wetsell, David C., Carrollton, Pa. Axle-gauge.....	May 30, 1871
115,002	Wettstein, John, assignor to self and John T. Hennaman, Baltimore, Md. Machine for making cigars.....	May 16, 1871
116,780	Wetzler, George, Peoria, Ill. Dinner-pail.....	July 4, 1871
112,520	Wexel, Henry, Providence, R. I. Ticket-holder.....	Mar. 7, 1871
120,804	Weyburn, Albert D., Pittsburgh, Pa. Lock for pianos, &c.....	Nov. 7, 1871
112,400	Weymouth, George F., Dresden, Maine. Hay-knife.....	Mar. 7, 1871
	Whalley, Edward, and Thomas Unsworth. (<i>See</i> Unsworth & Whalley.).....	
118,086	Wharton, Joseph, Philadelphia, Pa. Bearing surface and journal for machinery.....	Aug. 15, 1871
115,917	Wharton, Levi, assignor to Amos Rank, Salem, Ohio. Hose-coupling.....	June 13, 1871
110,808	Wharton, William, jr., Philadelphia Pa. Railway-switch.....	Jan. 3, 1871
	Whayre, R. B. S., and Louis L. Moore. (<i>See</i> Moore & Whayre.).....	
4,527	Wheat, John J., assignor of one-eighth interest to Abram Lash, Wheeling, W. Va. Sewing-machine table and cover.....(Reissue).....	Aug. 22, 1871
121,697	Wheatland, William H., Newark, N. J. Condensed steam-exhaust for steam-engines.....	Dec. 5, 1871
	Wheatley, James H., <i>et al.</i> (<i>See</i> Morrell, James A., assignor.).....	
	Wheaton, Milton A. (<i>See</i> Boone, John L., assignor.).....	
110,809	Wheeldon, John, Greensburgh, Ind. Bee-hive.....	Jan. 3, 1871
120,918	Wheeldon, John, assignor to self and J. C. St. John, Greensburgh, Ind. Bee-hive. Wheeler & Wilson Manufacturing Company. (<i>See</i> House, James A., and Henry A., assignors.).....	Nov. 14, 1871
	Wheeler, Andrew A., and John S. Welsh. (<i>See</i> Welch & Wheeler.).....	
116,901	Wheeler, Asa, assignor to G. B. Wheeler, Brattleborough, Vt. Gauge for countersinks.....	July 11, 1871
120,356	Wheeler, Caleb, Warsaw, Ohio. Horse-collar fastening.....	Oct. 24, 1871
120,556	Wheeler, Charles L., Pittsburgh, Pa. Process of making white-lead.....	Oct. 31, 1871
113,474	Wheeler, Cyrenus, jr., Auburn, N. Y. Harvester-rake.....	April 4, 1871
113,475	Wheeler, Cyrenus, jr., and Calvin Young, Auburn, N. Y. Harvester.....	April 4, 1871
117,494	Wheeler, Eldridge, Philadelphia, Pa. Mode of reducing the diameter of tubing.....	July 25, 1871
122,090	Same.....Fagot for metal bars.....	Dec. 19, 1871
	Wheeler, Elisha P. (<i>See</i> Merriam, Lincoln A., assignor.).....	
	Wheeler, F. A. (<i>See</i> Congdon, James W., assignor.).....	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Wheeler, George A., and Samuel P. R. Triscott. (<i>See</i> Triscott & Wheeler.)	
114,737	Wheeler, Harlan P., Rochester, N. Y. Weighing-scale	May 9, 1871
119,437	Wheeler, Henry F., Boston, Mass. Transmitting motion	Sept. 26, 1871
122,297	Wheeler, John W., and William A., Cleveland, Ohio. Carpet-beater	Dec. 26, 1871
116,517	Wheeler, Joshua S., Asa N., and Orange, Worcester, Mass. Adjustable tool-rest for lathes	June 27, 1871
	Wheeler, Moses W., <i>et al.</i> (<i>See</i> Skinner, Henry A., assignor.)	
115,670	Wheeler, Norman W., Morristown, N. J. Steam pumping-engine	June 6, 1871
4,478	Same	July 13, 1871
130,841	Same.....Pump	Nov. 14, 1871
	Wheeler, Ralph. (<i>See</i> Harrington, Jackson, assignor.)	
	Wheeler, Russell. (<i>See</i> Vedder & Ritchie, assignors.)	(Design.)
	Wheeler, Russell B. (<i>See</i> Farnham, Reuben G., assignor.)	
117,355	Wheeler, Seth, Albany, N. Y. Wrapping-paper. (Antedated July 20, 1871)	July 25, 1871
112,574	Wheeler, Seth, and Edgar Jerome, Albany, N. Y. Finishing paper-boxes. (Antedated March 16, 1871)	Mar. 21, 1871
113,377	Wheeler, Shepherd H., Dowagiac, Mich. Combined lock and latch	April 4, 1871
117,023	Same.....Combined knob-latch and lock	July 11, 1871
118,659	Same.....Pump-regulator. (Antedated Aug. 21, 1871)	Aug. 29, 1871
113,378	Wheeler, Shepherd H., assignor to self, Enos L. and Guy E. Chappell, Dowagiac, Mich. Hinge	April 4, 1871
	Wheeler, William C., and Frank H. Pulsifer. (<i>See</i> Pulsifer & Wheeler.)	
117,948	Wheelock, Jerome, Worcester, Mass. Hoisting-apparatus	Aug. 8, 1871
118,764	Same.....Steam-engine	Sept. 5, 1871
111,500	Wheelock, Luke, assignor to the Winchester Repeating Arms Company, New Haven, Conn. Repeating fire-arm	Jan. 31, 1871
114,375	Wheelock, Walter, Boston, Mass. Mercurial salve	May 2, 1871
110,707	Whelan, Charles A., and Charles T. Wakeley, Madison, Wis. Bag filling and weighing machine	Jan. 3, 1871
116,902	Whelpley, James D., Boston, Mass. Steam-engine	July 11, 1871
111,288	Whelpley, James D., and Jacob J. Storer, Boston, Mass. Gas-generating and blast-heating apparatus for metallurgic and other furnaces	Jan. 24, 1871
111,504	Same.....Manufacture of steel, steely iron, and homogeneous or crystalline iron	Jan. 31, 1871
111,593	Same.....Apparatus for delivering grain, ores, &c., into grinding-mills	Feb. 7, 1871
111,705	Same.....Furnace for burning pulverized fuel under steam-boilers, evaporators, &c.	Feb. 7, 1871
116,903	Same.....Treatment of ores by means of fuel, chemicals, and fluxes	July 11, 1871
118,660	Whidden, Hosea F., South Abington, Mass. Die for making metallic shanks for boots and shoes	Aug. 29, 1871
	Whiffen, William B. (<i>See</i> Frantz, Henry J., assignor)	(Design.)
4,892	White, Charles, William Lewis, Thomas Strickland, and Samuel Caddick, Snyten Duyvil, N. Y. Apparatus for rolling metal	May 16, 1871
4,865	Whipple, Isaac B., Gloversville, N. Y. Re-enforcing thumb-piece of gloves. (Design)	May 2, 1871
	Whipple, James T. (<i>See</i> Duck & Whitcomb, assignors)	(Reissue.)
112,100	Whipple, William N., Niles, N. Y. Water-wheel	Feb. 21, 1871
122,091	Whitaker, Edwin V., Gloversville, N. Y. Glove	Dec. 19, 1871
115,918	Whitaker, James W., Kenosha, Wis. Steam-pump and fire-engine	June 13, 1871
113,827	Whitaker, Samuel, assignor to self and Aaron Ruth, Macon, Ill. Case for ribbons, laces, &c.	April 18, 1871
4,611	Same.....Case for ribbons, laces, &c.	Oct. 24, 1871
119,438	Whitaker, Samuel, deceased, by Franklin Whitaker, administrator, Bel Air, Md. Self-acting gate	Sept. 26, 1871
113,230	Whitaker, William W., Gloversville, N. Y. Glove	Mar. 28, 1871
121,832	Same.....same	Dec. 12, 1871
121,833	Same.....same	Dec. 12, 1871
	Whitall, Henry. (<i>See</i> Burson, James, assignor.)	
119,729	Whitall, Henry, Philadelphia, Pa., and James Burson, Yates City, Ill. Grapple	Oct. 10, 1871
116,781	Whitcomb, Alonzo, Worcester, Mass. Copying-press	July 4, 1871
120,687	Same.....Wrench	Nov. 7, 1871
	Whitcomb, Elias K., and John H. Duck. (<i>See</i> Duck & Whitcomb.) (Reissue.)	
118,501	Whitcomb, George D., Chicago, Ill. Machine for undermining coal	Aug. 29, 1871
	Whitcomb, G. Henry & Co. (<i>See</i> Swift, Henry D. & Daniel W., assignors.)	
4,913	Whitcomb, Nehemiah C., Oak Hill, N. Y. Bedstead-fastening	May 16, 1871
114,738	White, Alexander, Rock Island, Ill. Base-burning stove	May 9, 1871
4,426	White, Alexander, assignor to the Rock Island Stove Company, Rock Island, Ill. Base-burning stove	June 13, 1871
111,501	White, Benjamin C., Des Moines, Iowa. Bolt-reel	Jan. 31, 1871
120,137	Same.....Mill-bolt	Oct. 17, 1871
113,122	White, Charles H., Emmett Township, Mich. Butter-tub	Mar. 28, 1871
114,376	White, Edwin R., Milford, Mass. Tilting-chair	May 2, 1871
	White, Frederick, and Albert Marcus Silber. (<i>See</i> Silber & White.)	
	White, George W. (<i>See</i> Randolph, Francis W., assignor.)	
	White, Heman M. (<i>See</i> Whiting, James M., assignor.)	
114,070	White, Henry Clay, assignor to George Booth & Co., Philadelphia, Pa. Grater	April 25, 1871
112,759	White, Henry K., Chelsea, Mass. Lathe-dog	Mar. 14, 1871
111,706	White, Jacob L., Hernando, Miss. Hay and cotton press. (Antedated Jan. 28, 1871)	Feb. 7, 1871
111,024	White, Jerison, Providence, Pa. Pruning-hatchet	Jan. 17, 1871
118,889	White, John N., New Orleans, La. Rice cleaning and polishing machine	Sept. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,678	White, Joseph W., Weymouth, Mass. Saw for sawing fret-holes in fan-sticks .	Oct. 3, 1871
111,999	White, Lawrence, Orford, Iowa. Washing-machine .	Feb. 21, 1871
	White, Le Roy S., and Wilson W. Knowles. (See Knowles & White.)	
4,304	White, Lewis, assignor through mesne assignments to Rufus S., William B., and Joshua Merrill, Waterbury, Conn. Lamp . (Reissue)	Mar. 14, 1871
	White, Lucius A., and John Rycroft. (See Rycroft & White.)	
114,239	White, Martin V. B., Fort Edward, N. Y. Mail-bag fastening, &c. .	April 25, 1871
116,125	White, Nelson D., Winchendon, Mass. Apparatus for coloring warps .	June 20, 1871
120,919	White, Otis C., Hopkinton, Mass. Dentists' and barbers' chair .	Nov. 14, 1871
115,797	White, Rand B., Sheboygan Falls, Wis. Wagon .	June 6, 1871
120,138	White, Reuben, Boston, Mass. Ventilator. (Antedated Oct. 4, 1871) .	Oct. 17, 1871
117,132	White, Robert F., Hoboken, N. J. Center-light fixture for chandeliers .	July 18, 1871
110,881	White, Rollin, Lowell, Mass. Metallic cartridge .	Jan. 10, 1871
112,101	Same. Wrench .	Feb. 21, 1871
112,305	Same. Cartridge .	Feb. 28, 1871
	Same. (See Morris & Brown, assignors) . (Reissue.)	
	White, Samuel M., and John B. Ferguson. (See Ferguson & White.)	
	White, Samuel S. (See Starr, Eli T., assignor) . (Design.)	
116,381	White, Thomas P., assignor to White Manufacturing Company, Bridgeport, Conn. Carriage-lamp support .	June 27, 1871
	White, T. W., Milledgeville, Ga. Cotton-seed planter . (Extension)	Oct. 19, 1871
117,842	White, William G., Bedford, Ohio. Brick-machine .	Aug. 8, 1871
122,661	White, William H., Baltimore, Md. Hat .	Mar. 14, 1871
110,810	White, William H., assignor of one-half interest to J. Wellington Hoyer, Baltimore, Md. Attachment for sewing-machines .	Jan. 3, 1871
4,627	White, Windsor Newton, Winchendon, Mass. Lamp-heater . (Reissue)	Nov. 7, 1871
112,760	White, Wolcott B., Rome, N. Y. Wash-boiler .	Mar. 14, 1871
118,567	Whitehall, Nicholas, Newtown, Ind. Sulky cultivator .	Aug. 29, 1871
121,738	Whitehead, Edward, Cincinnati, Ohio. Propulsion of vessels .	Dec. 12, 1871
118,313	Whitehead, Joseph, Trenton, N. J. Wringer-roller .	Aug. 22, 1871
113,231	Whitehead, Lewis, sen., Brooklyn, N. Y. Folding-bed .	Mar. 28, 1871
118,314	Whitehouse, Isaac, assignor to Charles Royle, New York, N. Y. Vapor-burner .	Aug. 22, 1871
117,356	Whitehouse, Ralph C., Hodgdon's Mills, Me. Culinary boiler .	July 25, 1871
	Whiteley, Henry A., and James C. Cooke. (See Cooke & Whiteley.)	
118,996	Whiteley, William N., Springfield, Ohio. Harvester .	Sept. 12, 1871
118,315	Whiteley, William N., and Salem T. Lamb, assignors to Salem T. Lamb, Springfield, Ohio. Harvester .	Aug. 22, 1871
119,209	Whitesell, David, Mattoon, Ill. Ditching-machine .	Sept. 19, 1871
114,071	Whiteside, Francis E., Oxford, Pa. Friction-band and stop for sewing-machines .	April 25, 1871
115,003	Same. Railway-alarm for trucks .	May 16, 1871
115,401	Whiteside, Samuel, Depere, Wis. Planing-machine .	May 30, 1871
110,882	Whitestone, Henry, Louisville, Ky. Curbing for excavations .	Jan. 10, 1871
	Whithed, Darius, et al. (See Bradshaw, Brown & Whithed) . (Reissue.)	
	Whitin Machine Works. (See Taft, Gustavus E., assignor.)	
113,123	Whiting, Barnet M., San Francisco, Cal. Sash-holder .	Mar. 28, 1871
	Whiting, George Augustus. (See Howard, Elijah Leavitt, assignor.) (Four cases.)	
121,032	Whiting, James M., Providence, R. I. Elastic car-wheel .	Nov. 14, 1871
115,550	Whiting, James M., assignor to self and Heman M. White, Providence, R. I. Bracket .	May 30, 1871
115,004	Whiting, John B., Ripon, Wis. Combined rake and reel for harvesters. (Antedated May 12, 1871) .	May 16, 1871
4,718	Whiting, John L., Boston, Mass. Paint-brush . (Design)	Mar. 14, 1871
116,382	Same. Brush .	June 27, 1871
118,661	Same. Brush .	Aug. 29, 1871
118,765	Whiting, Junius F., and Elam Fisher, Eaton, Ohio. School-desk and seat .	Sept. 5, 1871
118,316	Whitlock, Lewis L., New York, N. Y. Machine for lifting drop-weights .	Aug. 22, 1871
118,317	Whitlock, Lewis L., assignor to Maria Whitlock, New York, N. Y. Drop-press and trip-hammer .	Aug. 22, 1871
	Whitlock, Sturges, and Thomas L. Cornell. (See Cornell & Whitlock.)	
113,713	Whitlow, Samuel R., Limestone Township, Ill. Medical compound or bitters .	April 11, 1871
118,662	Whitman, Charles P., Charlemont, Mass. Bench-dog .	Aug. 29, 1871
	Whitman, F. H. (See Woodsum, E. H., assignor.)	
114,500	Whitman, Henry L., Saint Louis, Mo. Grain-separator .	May 2, 1871
	Whitman, Josiah A. (See Servant, William, assignor.)	
114,630	Whitman, Lorin M., assignor to self and Taylor Williams, Sterling, Ill. Clothes-drier .	May 9, 1871
118,568	Whitman, Peter S., Providence, R. I. Overshoe .	Aug. 29, 1871
	Whitman, Rodney S. (See McCammon & Burrell, assignors.)	
116,126	Whitman, William E. S., Augusta, Me. Broom .	June 20, 1871
117,843	Whitmore, Andrew E., Ilion, N. Y. Breech-loading fire-arm .	Aug. 8, 1871
	Whitmore, Jabez H., and Edward L. Cooke. (See Cooke & Whitmore.) (Design.)	
110,811	Whitmore, Joseph M., and John N. Arvin, Valparaiso, Ind. Corn-plauter .	Jan. 3, 1871
113,232	Whitmore, Seth H., Decatur, Ill. Cut-off valve-gear .	Mar. 28, 1871
113,956	Same. Steam-engine valve .	April 18, 1871
115,551	Whitmore, Titus, Waterloo, Iowa. Water-wheel .	May 30, 1871
118,766	Whitney, Alfred, assignor to self and Frank L. Penney, Boston, Mass. Medicine for treating rheumatism .	Sept. 5, 1871
118,087	Whitney, Artemus H., assignor of one-half interest to John L. Randall, Essex, N. Y. Jig-saw .	Aug. 15, 1871
	Whitney, Baxter D., Winchendon, Mass. Machine for smoothing planed wooden surfaces . (Extension)	Aug. 7, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
112,997	Whitney, Eli, New Haven, Conn. Breech-loading fire-arm.....	Mar. 21, 1871
115,258	Same.....Revolving fire-arm.....	May 23, 1871
115,997	Same.....Breech-loading fire-arm.....	June 13, 1871
	Same.....(See Tiesing & Gerner, assignors.) (Two cases.)	
120,139	Whitney, Hiram, Watertown, Mass. Gas-flame expander. (Antedated Oct. 5, 1871)	Oct. 17, 1871
4,562	Whitney, Joel, assignor of part interest to N. J. Simonds, Winchester, Mass. Machine for rolling leather..... (Reissue)..	Sept. 19, 1871
120,688	Whitney, John H., assignor to self and W. W. Marsh, Rochester, Minn. Corn-harvester.....	Nov. 7, 1871
120,689	Whitney, John H., and William W. Marsh, Rochester, Minn. Field corn-husker.....	Nov. 7, 1871
5,293	Whitney, Justin, Boston, Mass. Iron frame for upright pianos..... (Design)..	Sept. 26, 1871
115,798	Whitney, Sammel, Flushing, N. Y. Apparatus for carbureting gas and air....	June 6, 1871
	Whitney, Washington. (See Moore & Boyd, assignors.)	
4,570	Whitney, Washington, assignor to the Metropolitan Washing-Machine Company, Winchendon, Mass. Clothes-wringer..... (Reissue)..	Sept. 26, 1871
112,662	Whitney, William B., assignor to self and F. A. Whitney, Leominster, Mass. Child's carriage.....	Mar. 14, 1871
	Whiton, Edward F., Stafford Springs, N. Y. Centering-machine. (Extension)..	June 29, 1871
117,495	Whittaker, John, Sandusky, N. Y. Bolt-cutter.....	July 25, 1871
	Whittemore, D. H., Worcester, Mass. Machine for paring and slicing apples..... (Extension)..	Jan. 12, 1871
	Same.....Machine for paring apples..... (Extension)..	Feb. 16, 1871
112,102	Whittemore, Henry, Orangetown, N. Y. Dust-pan.....	Feb. 21, 1871
119,289	Same.....Wardrobe. (Antedated Sept. 18, 1871).....	Sept. 26, 1871
119,290	Same.....Wash-stand, bureau, and toilet-table combined.....	Sept. 26, 1871
111,594	Whittemore, John R., Chicopee Falls, Mass. Feed-cutter.....	Feb. 7, 1871
111,595	Whitten, Henry A., and Elijah D. Gove, Holyoke, Mass. Loom-picking motion..	Feb. 7, 1871
118,890	Whittick, Alexander H., Clarksville, Ind. Plow.....	Sept. 12, 1871
120,842	Whitworth, Joseph, England. Breech-loading ordnance.....	Nov. 14, 1871
117,024	Wiard, Edward, assignor to Benjamin F. Avery, Louisville, Ky. Plow.....	July 11, 1871
120,604	Wibbert, Adolph, Milwaukee, Wis. Desk and table.....	Nov. 7, 1871
4,602	Wickersham, John B., Philadelphia, Pa. Lubricator..... (Reissue)..	Oct. 17, 1871
	Same.....same..... (Reissue)..	Dec. 5, 1871
117,704	Wickersham, William, Boston, Mass. Sewing-machine for boots and shoes.....	Aug. 1, 1871
118,318	Same.....Machine for making wire for boot and shoe pegs.....	Aug. 22, 1871
118,319	Same.....Process for lasting boots and shoes.....	Aug. 22, 1871
	Wickham, Horace, Jr. (See Jeffery, Thomas B., assignor.)	
4,566	Wickham, Horace J., assignor to Joseph Recken-dorfer, Manchester, Conn. Combined pencil and receptacle..... (Design)..	Jan. 10, 1871
114,893	Wickham, Horace J., assignor through mesne assignments to Joseph Recken-dorfer, Manchester, Conn. Pencil-holder.....	May 16, 1871
122,298	Wicks, Loren J., assignor to self, William, C. N. and J. A. Selser, G. W. Turner, and John H. Poole, Bridgeton, N. J. Machine for filling fruit-cans and for cleaning off the tops of the same.....	Dec. 26, 1871
	Widney, James, and William A. Dunham. (See Dunham and Widney.) (Two cases.)..... (Reissue)..	
111,502	Wiedersum, Philip H., New York, N. Y. Harness saddle-tree.....	Jan. 31, 1871
116,518	Same.....same.....	June 27, 1871
116,519	Same.....same.....	June 27, 1871
111,596	Wiegand, S. Lloyd, Philadelphia, Pa. Drop-tube steam-generator. (Antedated Jan. 23, 1871).....	Feb. 7, 1871
119,100	Same.....Piston-packing.....	Sept. 19, 1871
119,256	Same.....Return-bend for steam-generators. (Antedated Sept. 6, 1871).....	Sept. 26, 1871
119,257	Same.....Steam-generator. (Antedated Sept. 6, 1871).....	Sept. 26, 1871
5,208	Wiener, Oscar, Newark, N. J. Saddle-hook for harness..... (Design)..	Aug. 15, 1871
116,904	Wiener, Simon, Newark, N. J. Harness-trimming.....	July 11, 1871
121,834	Wieners, Anton, Williamsburgh, N. Y. Bung-attachment to barrels.....	Dec. 12, 1871
117,025	Wier, Arthur McN. and Marshall A., England. Pneumatic telegraph.....	July 11, 1871
119,905	Wier, Thomas, Lacon, Ill. Insect-trap.....	Oct. 10, 1871
	Wiernan, J. W. G. (See Gibson, Samuel, assignor.)	
113,604	Wiggin, Jay J., New York, N. Y. Machine for the manufacture of composition-roofing.....	April 11, 1871
112,200	Wiggins, Jefferson G., assignor to self and J. S. Galletine, Lima, N. Y. Mode of attaching spokes to wheels.....	Feb. 28, 1871
4,410	Wight, Andrew Jackson, and William Lewis Meeker, Newark, N. J. Railroad turn-table..... (Reissue)..	May 30, 1871
114,377	Wight, Edwin, Philadelphia, Pa. Roll for rolling umbrella-connections.....	May 2, 1871
118,663	Wight, Henry, Malden, Mass. Last, &c.....	Aug. 29, 1871
112,663	Wight, Lyman, assignor to self and Orison G. Ewing, Whitewater, Wis. Broad-cast seeder and cultivator combined.....	Mar. 14, 1871
4,499	Same.....Grain-drill..... (Reissue)..	Aug. 1, 1871
122,299	Wight, Lyman, and Orison G. Ewing, Whitewater, Wis. Grain-drill.....	Dec. 26, 1871
122,300	Same.....Seeding-machine.....	Dec. 26, 1871
114,894	Wightman, John B., Brooklyn, N. Y. Measuring-pail.....	May 16, 1871
115,920	Same.....Children's carriage.....	June 13, 1871
114,072	Wigle, Eli, Bay City, Mich. Running-gear for carriages.....	April 25, 1871
120,140	Wigle, James, West Point, Ill. Harrow.....	Oct. 17, 1871
117,949	Wihl, David, assignor of one-fourth interest to Henry Wehle, Brooklyn, N. Y. Process of manufacturing cast-steel tools, &c.....	Aug. 8, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
117,950	Wihl, David, assignor of one-fourth interest to Henry Wehle, Brooklyn, N. Y. Process of manufacturing cast-steel tools, &c.	Aug. 8, 1871
120,407	Wilber, John D., assignor to Eureka Mower and Reaper Manufacturing Company, Poughkeepsie, N. Y. Harvester	Oct. 31, 1871
113,957	Wilber, Joseph R., and Otis W. Peirce, Providence, R. I. Neck-tie	April 18, 1871
5,294	Wilbur, Edward B., Raynham, Mass. Stove-cover lifter (Design)	Sept. 26, 1871
117,227	Wilbur, George A., Woonsocket, R. I. Sash-cord fastener. (Antedated July 13, 1871.)	July 18, 1871
119,807	Wilbur, James G., and Hiram H. Hurlbut, Kilbourn City, Wis. Tool-handle fastener. (Antedated Oct. 3, 1871.)	Oct. 10, 1871
110,833	Wilbur, Oliver C., jr., Providence, R. I. Fastening for the tips of billiard-cues.	Jan. 10, 1871
112,103	Wilcock, Alfred, Richard Robinson, and Frederick Wilcock, Great Britain. Driving-mechanism for roving, slubbing, and other machines.	Feb. 21, 1871
120,408	Wilcox, Ebenezer, East Cleveland, Ohio. Weeding-hoe	Oct. 31, 1871
	Wilcox, Francis S. (See Woodruff, Luther J., assignor.)	
	Wilcox, Henry N. (See Fisher, Charles, assignor.)	
117,026	Wilcox, Horace C., assignor to the Meriden Britannia Company, West Meriden, Conn. Covered articles for table-service	July 11, 1871
5,195	Same.....Call-bell (Design)	Aug. 8, 1871
5,196	Same.....Tea-bell (Design)	Aug. 8, 1871
5,374	Same.....Pickle-jar (Design)	Nov. 21, 1871
121,304	Wilcox, Irving F., Streetsborough, Ohio. Basket-splint	Nov. 23, 1871
112,306	Wilcox, John Warren, New York, N. Y. Paper box	Feb. 23, 1871
119,679	Wilcox, Joseph S., Ypsilanti, Mich. Bucket for chain-pumps	Oct. 3, 1871
117,710	Wilcox, Roswell D., Buffalo, N. Y. Stove-pipe oven	Aug. 1, 1871
	Wilcox, Stephen, and George H. Babcock. (See Babcock & Wilcox.) (Reissue.)	
118,891	Wilcox, Walter S., and James A., Rocky Hill, Conn. Wrench	Sept. 12, 1871
120,557	Wilcox, William, Middletown, Conn. Padlock	Oct. 31, 1871
115,402	Wilcox, William C., Waltham, Mass. Curtain-fixture	May 30, 1871
	Wilcox, William E., et al. (See Ellsworth, Wilcox, & Seabury.)	
114,240	Wild, Frederick W., Baltimore, Md. Balance-wheel	April 25, 1871
117,533	Wild, John L., Bay City, Mich. Hair-dye and cosmetic	Aug. 1, 1871
	Wild, Joseph. (See McCallum, Archibald, assignor.) (Design)	
	Same.....(See Perrin, Edward, assignor.)	
	Wild, Joseph, & Co. (See McCallum, William, assignor.) (Two cases.) (Design)	
	Same.....(See Paton, David, assignor.) (Two cases.) (Design)	
	Same.....(See Bouet, Joannin, assignor.) (Two cases.) (Design)	
	Same.....(See Demoussy, Emile, assignor.) (Two cases.) (Design)	
	Same.....(See Dresser, Christopher, assignor.) (Two cases.) (Design)	
	Same.....(See Mallinson, William, assignor.) (Three cases.) (Design)	
	Same.....(See Patchett, Joseph James, assignor.) (Two cases.) (Design)	
	Same.....(See Robinson, Herbert, assignor.) (Two cases.) (Design)	
	Same.....(See McCallum, Archibald, assignor.) (Six cases.) (Design)	
	Same.....(See Perrin, Edward, assignor.) (Six cases.) (Design)	
117,357	Wilder, Elihu, Springfield, Mass. Set-screw for sewing-machine attachments	July 25, 1871
116,905	Wilder, John, assignor to self and Alexander Toll, Detroit, Mich. Cooking-stove	July 11, 1871
121,693	Wilder, Julius P., Tonawanda, N. Y. Shingle-machine	Dec. 5, 1871
	Wilder Lyman W., et al. (See Jaquith, Frederick P., assignor.)	
116,332	Wilder, Moses G., West Meriden, Conn. Power-press	June 27, 1871
4,443	Same.....Punching-press (Reissue)	June 27, 1871
	Wilder, Samuel D., et al. (See Clarkson, George, assignor.)	
	Wildman, Charles B. (See Berkeley, Norborne, assignor.)	
4,866	Wildman, Lucius P., Danbury, Conn. Bow-instrument (Design)	May 2, 1871
122,301	Wildman, Matthew K., Brooklyn, N. Y. Propelling vessels	Dec. 26, 1871
114,073	Wiley, Hiram S., Madison, Ind. Stave-equalizer	April 25, 1871
	Wiley, John A., et al. (See McGovern, Peter, assignor.)	
	Same.....(See Ashworth, John, assignor.)	
	Same.....(See Stone, Joseph M., assignor.)	
5,271	Wiley, Moses H., assignor to self, John H. B. Lang, and Thomas Miller, Boston, Mass. Oil-cabinet (Design)	Sept. 19, 1871
116,732	Wiley, Thomas A., Lancaster, Pa. Cigar-box	July 4, 1871
4,693	Wilhelm, August, Philadelphia, Pa. Reflector (Design)	Feb. 28, 1871
118,038	Wilhoit, David S., Madison Court-House, Va. Garden-implement	Aug. 15, 1871
114,631	Wilkin, Henry S., Brooklyn, N. Y. Buckle	May 9, 1871
121,477	Wilkins, John N., Chicago, Ill. Sewing-machine	Dec. 5, 1871
	Wilkins, Josiah W., and Crawford S. Griffin. (See Griffin & Wilkins.)	
	Wilkins, Monroe P., and Charles D. Rogers. (See Rogers & Wilkins. (Reissue.)	
111,239	Wilkinson, Asbury, assignor to self and William T. Gibson, Greensburgh, Ind. Bee-hive	Jan. 24, 1871
	Wilkinson, Charles. (See Carroll, John, assignor.)	
113,767	Wilkinson, Edward, assignor to self and William O. Davey & Sons, Paterson, N. J. Rag-cutting engine	Sept. 5, 1871
4,719	Wilkinson, George, assignor to Gorham Manufacturing Company, Providence, R. I. Spoon or fork handle (Design)	Mar. 14, 1871
4,731	Same.....Handle for spoons or forks (Design)	Mar. 21, 1871
5,093	Same.....Spoon or fork handle (Design)	July 4, 1871
5,284	Wilkinson, George, assignor to John P. Adams, Providence, R. I. Ice-pitcher body (Design)	Sept. 26, 1871
114,241	Wilkinson, John, Baltimore, Md. Horse-stall	April 25, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
118,569	Wilkinson, John D., Plattsburgh, N. Y. Breech-loading fire-arm.....	Aug. 29, 1871
110,708	Wilkinson, Lewis, New York, N. Y. Sad-iron heater.....	Jan. 3, 1871
	Wilkinson, Marcellous L., and Charles J. Turner. (<i>See Turner & Wilkinson.</i>)	
	Wilkinson, William, and Jonathan Moore. (<i>See Moore & Wilkinson.</i>) (Eight cases).....	(Design.)
116,249	Wilks, Joseph, Trenton, N. J. Stair-rod.....	June 20, 1871
112,875	Willard, Henderson, Grand Rapids, Mich. Barrel.....	Mar. 21, 1871
117,496	Same..... Mode of transporting eggs.....	July 25, 1871
120,920	Same..... Barrel and other cylindrical package.....	Nov. 14, 1871
	Willard, Hosea, and Robert Ross, Vergennes, Vt. Harvester. (Extension of No. 1775).....	Nov. 2, 1871
	Same..... Harvester..... (Extension of No. 1776).....	Nov. 2, 1871
	Same..... same..... (Extension of No. 1780).....	Nov. 2, 1871
	Same..... same..... (Extension of No. 1781).....	Nov. 2, 1871
	Same..... same..... (Disclaimer filed).....	Nov. 3, 1871
	Willcox & Gibbs Sewing-Machine Company. (<i>See Carleton, Cyrus, assignor.</i>)	
	Same..... (<i>See Boyes, Burritt C., assignor.</i>) (Reissue.).....	
116,520	Willcox, Charles H., New York, and Cyrus Carleton, Brooklyn, N. Y., assignors to the Willcox & Gibbs Sewing-Machine Company. Sewing-machine..	June 27, 1871
116,521	Same..... Sewing-machine.....	June 27, 1871
116,522	Same..... same.....	June 27, 1871
116,523	Same..... same.....	June 27, 1871
116,783	Same..... same.....	July 4, 1871
4,663	Willcox, Charles H., assignor through mesne assignments to the Willcox & Gibbs Sewing-Machine Company, New York, N. Y. Sewing-machine needle.....	Dec. 5, 1871
120,223	Willcox, Cyprian, New Haven, Conn. Copping. (Antedated Oct. 21, 1871).....	Oct. 24, 1871
120,921	Willcox, Edward J., Ivy Mills, Pa. Folding chicken-coop.....	Nov. 14, 1871
118,320	Willcox, Eli, Hamburg, Iowa. Churn.....	Aug. 22, 1871
114,005	Willcox, James M., Glen Mills, Pa. Paper for bank-notes, bonds, &c.....	May 16, 1871
114,895	Willet, Richard H., Washington, D. C. Wood-pavement.....	May 16, 1871
119,439	Willet, George, Saint Albans, Vt. Machinery for manufacturing brushes. (Antedated Sept. 14, 1871).....	Sept. 26, 1871
119,440	Same..... Machinery for manufacturing brushes. (Antedated Sept. 14, 1871).....	Sept. 26, 1871
	Willey, Alvin, <i>et al.</i> (<i>See Jaquith, Frederick P., assignor.</i>)	
114,501	Williams, Aaron W. C., England. Lawn-mower.....	May 2, 1871
	Williams, Abby A. (<i>See Pratt & Williams, assignors.</i>)	
111,290	Williams, Allison L., Orth, Ind. Flour-bolting reel.....	Jan. 24, 1871
119,486	Williams, Arthur David, England. Machine for twisting bars of metal.....	Oct. 3, 1871
	Williams, Benjamin J. (<i>See Witsil, George L., assignor.</i>)	
111,707	Williams, Charles, jr., Somerville, and Jerome Redding, Charlestown, Mass. Electro-magnetic alarm-bell.....	Feb. 7, 1871
120,473	Williams, Christopher, Adrian, Mich. Car-axle box.....	Oct. 31, 1871
	Williams, C. D. (<i>See Nobles, William H., assignor.</i>)	
	Williams, D., and H. S. Holmes. (<i>See Holmes & Williams.</i>)	
	Williams, Daniel G., and Orrin H. Harding. (<i>See Harding & Williams.</i>)	
116,906	Williams, David G., Boston, Mass. Composition for healing-plasters.....	July 11, 1871
113,476	Williams, Douglas Joseph, England. Movable partition.....	April 4, 1871
	Williams, Dyer. (<i>See Green, Squire J., assignor.</i>)	
115,142	Williams, Edward, Batavia, N. Y. Railroad-rails.....	May 23, 1871
115,998	Williams, Elias H., Clermont, Iowa. Excavating-machine.....	June 13, 1871
121,033	Williams, George C., Boston, Mass. Hank for sails. (Antedated Nov. 9, 1871).....	Nov. 14, 1871
111,025	Williams, George L., assignor to self, Radcliffe B. Lockwood, and William A. Scott, Mine la Motte, Mo. Rock-drill.....	Jan. 17, 1871
120,690	Williams, Henry D., Fairview, Iowa. Ditching-plow.....	Nov. 7, 1871
112,664	Williams, Henry, Buffalo, N. Y. Copy-holder.....	Mar. 14, 1871
111,026	Williams, Irwin, Baldwinsville, N. Y. Rotary pump.....	Jan. 17, 1871
5,094	Williams, Isaac F., assignor to the National Rubber Company, Bristol, R. I. Rubber overshoe.....	July 4, 1871
5,095	Same..... same..... (Design).....	July 4, 1871
	Williams, Isaac F., and Augustus O. Bourn. (<i>See Bourn & Williams.</i>) (Two cases.).....	
122,207	Williams, James, Bell's Depot, Tenn. Car and tender loading apparatus.....	Dec. 26, 1871
115,552	Williams, James B., Glastenbury, Conn. Churn.....	May 30, 1871
116,524	Same..... Evaporating-pan.....	Jan. 27, 1871
	Same..... (<i>See Butler, Francis G., assignor.</i>) (Reissue.).....	
	Same..... (<i>See Butler, Francis G., assignor.</i>) (Two cases.).....	
115,259	Williams, James M., Connorsville, Ind. Blowing-machine. (Antedated May 20, 1871).....	May 23, 1871
111,892	Williams, John H., Pleasant Hill, Ohio. Gauge for the construction of seat-cushions.....	Feb. 14, 1871
	Williams, John M., and John E. Moss. (<i>See Porter, Archibald A., assignor.</i>)	
	Williams, J. M. (<i>See Stone, John H., assignor.</i>)	
116,907	Williams, John T., Chicago, Ill. Lock for doors, &c.....	July 11, 1871
	Same..... (<i>See McCormick, William H., assignor.</i>)	
122,092	Williams, Joseph, Jefferson, Texas. Soldering-iron.....	Dec. 19, 1871
117,228	Williams, Linus H., Cromwell, Conn. Construction of tea and coffee pots.....	July 18, 1871
	Williams, L. P., <i>et al.</i> (<i>See Morrell, James A., assignor.</i>)	
	Williams, N. Bangs, and William Pratt. (<i>See Pratt & Williams.</i>)	
4,327	Williams, Paul, assignor to Robert A. and James L. Williams, Winona, Miss. Cotton-press.....	April 4, 1871
121,739	Williams, Robert S., Norristown, Pa. Thrashing-machine.....	Dec. 12, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
119,906	Williams, Romeyn, Philadelphia, Pa. Boot for horses' hoofs.....	Oct. 10, 1871
114,074	Williams, Samuel M. and Henry M., Coldwater, Mich. Spinning-machine.....	April 25, 1871
120,175	Williams, Stephen, and Henry McNeill, Philadelphia, Pa. Washing-machine.....	Oct. 24, 1871
120,691	Same..... same.....	Nov. 7, 1871
	Williams, Taylor. (See Whitman, Lorin M., assignor.)	
111,291	Williams, Thomas, Tompkinsville, N. Y. Roach and bug trap.....	Jan. 24, 1871
112,876	Williams, Thomas Charles, East Randolph, Wis. Window-curtain fixture.....	Mar. 21, 1871
113,379	Williams, Thomas C., Warrenton, Mo. Foot-lifter for blacksmiths.....	April 4, 1871
	Williams, Thomas S., <i>et al.</i> (See Taber, Freeman A., assignor.)	
	Williams, Thomas T., <i>et al.</i> (See Young, Wissinger & Williams.)	
110,944	Williams, Urban R., and William P. Martin, Salem, Mass. Machine for board- ing leather.....	Jan. 10, 1871
	Williams, W. D. (See Henry, John Joseph, assignor.)	
	Williams, William H., <i>et al.</i> (See Bean, John, jr., assignor.)	
110,709	Williams, William L., New York, N. Y. Children's hobby-horse.....	Jan. 3, 1871
111,597	Same..... Velocipede. (Antedated Jan. 25, 1871).....	Feb. 7, 1871
111,796	Same..... Machine for bundling wood.....	Feb. 14, 1871
	Same..... Machine for splitting wood..... (Extension).....	April 14, 1871
	Same..... same..... (Disclaimer filed).....	April 14, 1871
117,951	Same..... Wood-splitting machine.....	Aug. 8, 1871
117,952	Same..... Machine for splitting kindling-wood.....	Aug. 8, 1871
	Same..... (See Hamilton, Robert W., assignor.)	
117,229	Williamson, David, assignor to self and Eugene Bissell, New York, N. Y. Li- quid-meter.....	July 18, 1871
120,474	Williamson, Henry, Williamsburgh, N. Y. Lace-knitting machine.....	Oct. 31, 1871
118,321	Williamson, Samuel, Cincinnati, Ohio. Water-tuyere. (Antedated Aug. 9, 1871).....	Aug. 22, 1871
116,656	Williamson, William C., Philadelphia, Pa. Safety-attachment for hoisting-cage.....	July 4, 1871
117,844	Willis, Addison, Chicago, Ill. Broom.....	Aug. 8, 1871
	Willis, Benjamin, <i>et al.</i> (See Colby, Calvin M., assignor.)	
112,307	Willis, James, England. Umbrella.....	Feb. 28, 1871
	Willis, Joseph W., and Samuel J. Peet. (See Peet & Willis.)	
113,605	Willmot, George R., Meriden, Conn. Fender or cushion for furniture.....	April 11, 1871
118,570	Willoughby, Josee L., Bowling Green, Ky. Harrow.....	Aug. 29, 1871
119,730	Wills, Edwin S., Philadelphia, Pa. Sash-fastener.....	Oct. 10, 1871
117,584	Wills, Harry A., Vergennes, Vt. Machine for pointing horseshoe-nails.....	Aug. 1, 1871
119,680	Willson, Abner, Buffalo, N. Y. Oven.....	Oct. 3, 1871
112,877	Willson, Thomas Atwood, Reading, Pa. Glass for the manufacture of spectacles.....	Mar. 21, 1871
113,124	Same..... Tinted glass for spectacles, &c.....	Mar. 28, 1871
4,666	Wilmarth, Moses P., assignor to Alvin F. and Stephen A. Jenks, John R. Fales, and Francis J. Rabbeth, North Providence, R. I. Lubricating-bolster for spinning-machines..... (Reissue).....	Dec. 12, 1871
	Wilmeth, Isaiah W., and Albert L. Platt. (See Platt & Wilmeth.)	
115,269	Wilnot, Byron, assignor to self and J. K. Gulihar, Montana, Iowa. Sash-holder.....	May 23, 1871
	Wilnot, Samuel R., Bridgeport, Conn. Operating-valves of steam-engines. (Extension).....	Feb. 16, 1871
	Wilson & Grimes. (See Altick & Grimes, assignors.)	
5,305	Wilson, Albert A., assignor to self and the Yale Iron Works, New Haven, Conn. Upright steam-engine..... (Design).....	Oct. 3, 1871
118,413	Wilson, Alexander, Oxford, Pa. Rail-lifter.....	Aug. 22, 1871
119,210	Wilson, Charles, assignor of one-half interest to Charles F. Mudge, Bridgeport, Conn. Diving-apparatus.....	Sept. 19, 1871
110,812	Wilson, Charles C., Baltimore, Md. Machine for wrapping kisses, &c.....	Jan. 3, 1871
113,380	Wilson, Charles F., Brooklyn, N. Y. Spindle-bearing.....	April 4, 1871
116,384	Wilson, George, Chicago, Ill. Iron folding-chair.....	June 27, 1871
116,784	Same..... Iron folding-chair.....	July 4, 1871
119,487	Same..... Spring-bed bottom.....	Oct. 3, 1871
121,034	Same..... Iron folding-chair.....	Nov. 14, 1871
118,768	Wilson, George F., Providence, R. I. Putting up baking-powders.....	Sept. 5, 1871
116,385	Wilson, George H., Mansfield, Ohio. Vapor-burner.....	June 27, 1871
115,799	Wilson, George W., Chelsea, Mass. Apparatus for combining or mixing two or more substances.....	June 6, 1871
120,605	Wilson, Harmon K., Barboursville, Ky. Composition for painting and staining furniture. (Antedated Oct. 18, 1871).....	Nov. 7, 1871
118,997	Wilson, Henry, Tarr Farm, Pa. Pipe-wrench.....	Sept. 12, 1871
113,351	Wilson, Hiram J., Mason, Mich. Lifting-jack.....	April 4, 1871
	Wilson, Isaac S. (See Hadwin, William, assignor.)	
114,896	Wilson, James, Davis's Mills, Va. Millstone-dress.....	May 16, 1871
	Same..... (See Humphrey, John, assignor.)	
	Wilson, James C. (See Pearson, William E., assignor.)	
113,382	Wilson, James H. L., Auburn, Kansas. Crib attachment for bedsteads.....	April 4, 1871
5,313	Wilson, John, assignor to Wilson & Hughes, Boston, Mass. Sewing-machine cover..... (Design).....	Oct. 10, 1871
110,884	Wilson, John G., New York, N. Y. Boiler for heating.....	Jan. 10, 1871
113,477	Wilson, John J., New York, N. Y. Block for top-prop joints for carriages.....	April 4, 1871
113,606	Same..... Pivot for seats.....	April 11, 1871
113,607	Same..... Bracket-seat.....	April 11, 1871
	Wilson, John M., <i>et al.</i> (See Frear, George A., assignor.)..... (Reissue.)	
117,953	Wilson, John T., Pittsburgh, Pa. Die for manufacturing followers for draw- bars of railroad-couplings.....	Aug. 8, 1871
117,954	Same..... Die for manufacturing draw-head face-plates for railroad- couplings.....	Aug. 8, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,608	Wilson, John T., assignor to self, William D. Berry, and John A. Courtney, Pittsburgh, Pa. Buffer-head and draw-bar for railway-cars.	April 11, 1871
118,322	Wilson, John T., assignor to Coleman, Rahm & Co., Pittsburgh, Pa. Method of making draw-bars or buffers.	Aug. 22, 1871
122,093	Wilson, Joseph B., assignor to self, Fisher Hazard, and Samuel B. Huey, Philadelphia, Pa. Washing-machine.	Dec. 19, 1871
122,094	Same..... Fluid for extracting grease from fabrics.	Dec. 19, 1871
112,878	Wilson, Joseph M., Philadelphia, Pa. Bolster-block and pier or abutment-plate for bridges and roof-trusses.	Mar. 21, 1871
118,769	Wilson, Levi S., Wabash, Ind. Plow.	Sept. 5, 1871
114,378	Wilson, Milton M., assignor to self and James H. Curl, Elwood, N. J. Combined square, level, plumb, and gauge.	May 2, 1871
115,403	Wilson, Paul, and James Hunter, Manchester, N. H. Stop-motion for warping-machines.	May 30, 1871
110,710	Wilson, Riley P., New York, N. Y. Apparatus for making extracts for tanning.	Jan. 3, 1871
120,606	Same..... Tanning hides. (Antedated Oct. 21, 1871)	Nov. 7, 1871
120,922	Wilson, Robert J., Pittsburgh, Pa. Vacuum-brake for railroad-cars.	Nov. 14, 1871
113,233	Wilson, Uriah T., De Soto City, Miss. Corn-planter.	Mar. 28, 1871
117,027	Same..... Independence, Miss. Cotton press.	July 11, 1871
118,414	Wilson, William, Boston, Mass. Shoemakers' foot-measure.	Aug. 22, 1871
114,632	Wilson, William, assignor to Howell & Brothers, Edgewater, N. J. Manufacture of wall-paper.	May 9, 1871
120,692	Wilson, William C., Brunswick, Ill. Cultivator.	Nov. 7, 1871
	Wilson, William H., <i>et al.</i> (See Smyth, David M., assignor.)	
117,497	Wimer, William, Freeport, Ill. Land-roller.	July 25, 1871
111,162	Winant, William K., assignor to self, William Wilmot Kissam, and Emily Winant, Rye, N. Y. Window-protector.	Jan. 24, 1871
112,998	Winby, William Edward, England. Railway-rail and chair.	Mar. 21, 1871
119,808	Winchell, Edwin H., New York, N. Y. Smoke-stack for locomotives.	Oct. 10, 1871
119,509	Same..... Railway-car ventilator.	Oct. 10, 1871
119,441	Winchell, George D., Cincinnati, Ohio. Oil-can.	Sept. 26, 1871
115,999	Winchell, James F., assignor to Elijah C. Middleton, Springfield, Ohio. Fare-box.	June 13, 1871
121,920	Same.....	Dec. 12, 1871
117,132	Winchester, George C., Ashburnham, Mass. Chair. (Antedated July 6, 1871)	July 18, 1871
121,835	Winchester, Oliver F., New Haven, Conn. Swivel-loop for fire-arms.	Dec. 12, 1871
	Winchester Repeating-Arms Company. (See Wheelock, Luke, assignor.)	
	Same..... (See Stetson, George R., assignor.)	
111,292	Windhausen, Franz, assignor to Louis Schneider, C. T. Buddecke, and John A. Blaffer, Germany. Apparatus for making ice, and cooling.	Jan. 24, 1871
111,293	Same..... Ice-machine.	Jan. 24, 1871
4,603	Same..... same. (Reissue.)	Oct. 17, 1871
	Windsor Manufacturing Company. (See Lamson, Ebenezer G., assignor.) (Re-issue.)	
115,404	Windsor, William H., Little Rock, Ark. Printers' furniture.	May 30, 1871
119,956	Winecoff, Jesse, Berlin, Pa. Sully.	Oct. 17, 1871
119,211	Wines, Joseph L., Hebardsville, Ohio. Flood-fence.	Sept. 19, 1871
115,143	Winfield, William C., Hubbard, Ohio. Miners' lamp.	May 23, 1871
118,770	Wing, Sennitt A., and Ianthus G. Johnson, Greenfield Centre, N. Y. Axle-box.	Sept. 5, 1871
119,488	Wingard, Adam, San Francisco, Cal. Construction of vessels.	Oct. 3, 1871
112,879	Winger, John, Kansas City, Mo. Composition for staining wood.	Mar. 21, 1871
	Wingfield, John H. (See Richardson, Lundy & Irvine, assignors.) (Reissue.)	
121,921	Winn, Mark L., New York, N. Y. Shampooing-apparatus.	Dec. 12, 1871
117,845	Winne, William G., Albany, N. Y. Oiling journals.	Aug. 8, 1871
115,554	Winner, Joseph L., Elizabeth City, N. C. Apparatus for fuminating photographic paper, &c.	May 30, 1871
121,141	Winner, Joseph L., assignor to Louis W. Gulager and Robert M. Robinson, Elizabeth City, N. C. Corner photographic-plate holder.	Oct. 17, 1871
114,242	Winsborough, Richard H., Saint Louis, Mo. Preparation and application of pyroxyline for dental plates.	April 25, 1871
	Winser, Harvey D. (See Flanigan, Mark, assignor.)	
	Winslow, Charles, Lynn, Mass. Elastic-gore cloth. (Extension)	Aug. 4, 1871
	Same..... (See Dowling, Robert H., assignor.)	
	Winslow, Elisha F., and Joseph W. Coburn. (See Coburn & Winslow.)	
121,976	Winslow, John B., Charlestown, Mass. Treadle for sewing-machines.	Dec. 19, 1871
111,598	Winslow, Joseph L., Portland, Me. Steam-heater.	Feb. 7, 1871
115,261	Winslow, Reuben, assignor to self and Reuben Winslow Petrikan, Lock Haven, Pa. Car-truck.	May 23, 1871
	Winson, Henry, and David H. Clark. (See Clark & Winson.)	
	Winston, Joseph S., and Edward T. Smith. (See Smith & Winston.) (Two cases.)	
112,401	Winter, Charles, Chillicothe, Ohio. Claw-bars.	Mar. 7, 1871
	Winter, Fitz Henry. (See Atherton, Abel T., assignor.)	
	Winters, Joy, <i>et al.</i> (See Loomis, Winters & Stark.)	
112,308	Winters, William C., Rochester, N. Y. Sewing-machine.	Feb. 28, 1871
	Wisdom, William. (See Kievlan, James, assignor.)	
	Wise, Franklin A., and James Valleley. (See Valleley & Wise.)	
	Wise, Henry G. (See Wallis, John N. and Theodore, assignors.)	
112,000	Wise, William C., and John Ashman, Chelsea, Mass. Faucet.	Feb. 21, 1871
119,907	Wisell, David D., Zanesville, Ind. Carriage-spring.	Oct. 10, 1871
118,998	Wisner, Joseph C., Doylestown, Pa. Washing-machine.	Sept. 12, 1871
121,035	Wisner, James E., Friendship, N. Y. Horse hay-rake.	Nov. 14, 1871
	Same..... (See Lord, Allen P., assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
121,740	Wissinger, Henry, <i>et al.</i> (See Young, Wissinger & Williams.)	
116,127	Wissler, Aaron, Brunersville, and Jacob Gamber, Petersburg, Pa. Horse-power	Dec. 12, 1871
120,176	Wiswell, Jacob C., Lenoxville, Canada, and Frederick A. Wiswell, Beebe Plain, Vt. Dumping-car	June 20, 1871
114,379	Withall, Elijah, Rochester, N. Y. Leg and foot rest	Oct. 24, 1871
	Witherell, Loren R., assignor to David A. and Edward D. Dudley, Galesburgh, Ill. Door-spring	May 2, 1871
111,101	Witherell, Orin O., and Aaron Bauman. (See Bauman & Witherell.)	
115,405	Withers, A. Quarles, Holly Springs, Miss. Planter and cultivator	Jan. 17, 1871
	Withers, Edwin D., Parkton, Md. Swage for horseshoe-calks	May 30, 1871
111,708	Withington, Charles B., and Peter H. Inman. (See Inman & Withington.)	
113,958	Withington, George, Ione City, Cal. Wheel for wheelbarrows	Feb. 7, 1871
117,846	Witmer, Tobias, Buffalo, N. Y. Fire-escape ladder	April 18, 1871
116,525	Witsil, George L., Philadelphia, Pa. Washing-machine	Aug. 8, 1871
	Witsil, George L., assignor through mesne assignments to self, Thomas L. Bates, and Benjamin J. Williams, Philadelphia, Pa. Washing-machine	June 27, 1871
112,665	Wittlinger, William, and Jacob Wehrle. (See Wehrle & Wittlinger.)	
118,415	Wnuck, August, Cincinnati, Ohio. Carriage-brake	Mar. 14, 1871
118,416	Woerd, Charles V., Waltham, Mass. Stem-winding watch	Aug. 22, 1871
	Wolcott, Charles H., Jamestown, N. Y. Clothes-rack	Aug. 22, 1871
118,771	Wolcott, Elbridge, and Jonas C. Young. (See Bellamy, John H., assignor.) (Two cases.) (Design.)	
	Wolcott, Henry E., assignor of one-fourth interest to Nathan Munro, Elbridge, N. Y. Base-burning cooking-stove	Sept. 5, 1871
121,071	Wolcott, Newlan J., and Lucien F. Bruce. (See Bruce & Wolcott.)	
	Wolf, Abraham F., Beaver Falls, Pa. Tea-kettle	Nov. 21, 1871
	Wolf, Daniel. (See Hillebrand, Louis, assignor.) (Disclaimer.)	
120,805	Wolf, Daniel, and Louis Hillebrand. (See Hillebrand & Wolf.)	
112,880	Wolf, John I., Greenfield, Ohio. Dumping-wagon	Nov. 7, 1871
	Wolf, Leopold, assignor to the Meriden Malleable-Iron Company, Meriden, Conn. Mechanism for manufacturing heads for picture-nails	Mar. 21, 1871
118,571	Wolfe, James H., Lytle City, Iowa. Hay-knife	Aug. 29, 1871
111,415	Wolff, Charles, sr., and Charles, jr., Cincinnati, Ohio. Machine for disintegrating wood	Jan. 31, 1871
5,306	Wolff, David E., Welsh Run, Pa. Thill-coupling (Design)	Oct. 3, 1871
116,128	Wolff, David Ludwig, assignor to self, Matthias Poncelet, and Henry Nass, Chicago, Ill. Floor-covering, roof, &c. (Antedated June 6, 1871)	June 20, 1871
110,711	Wolfinger, Francis R., Chicago, Ill. Cover and table for sewing-machines	Jan. 3, 1871
117,358	Same.....Sewing-machine cover	July 25, 1871
117,359	Same.....Sewing-machine table	July 25, 1871
119,291	Wolfson, Louis, Boston, Mass. Ornamenting leather	Sept. 26, 1871
	Wombaugh, M. M., and A. C. Martin. (See Martin & Wombaugh.) (Extension.)	
	Wonson, Augustus H., and James G. Tarr. (See Tarr & Wonson.) (Two cases.) (Reissue.)	
	Wood, Amos L., trustee. (See Chicken, William, assignor.)	
	Same.....(See Chicken & Moulton, assignors.)	
116,908	Wood, Aurin, and Joseph F. Light. (See Warren, William H., assignor.)	
112,881	Wood, Charles, Worcester, Mass. Hot-air furnace	July 11, 1871
4,835	Wood, Charles J., Baltimore, Md. Steam-heater	Mar. 21, 1871
115,800	Same.....Range	April 18, 1871
113,828	Same.....Cooking-range	June 6, 1871
112,201	Wood, Edwin A., Utica, N. Y. Time-indicator for offices	April 18, 1871
112,999	Wood, Galen S., Vassalborough, Me. Medical compound or liniment	Feb. 28, 1871
	Wood, George W., assignor to Marion A. Wood, Brooklyn, N. Y. Ship's compass	Mar. 21, 1871
114,243	Wood, Henry S., and James W. Morrison, assignors of one-third interest to Jacob P. Pfanner, Chicago, Ill. Mirror-reflector	April 25, 1871
114,502	Wood, Isaac H. (See Abbott, Warren N., assignor.)	
114,380	Wood, Jackson B., Richmond, Va. Composition for manufacture of soda-water	May 2, 1871
113,125	Wood, Jacob A., Chemung, Ill. Washing-machine	May 2, 1871
116,526	Wood, Jacob A. and Thomas, Chemung, Ill. Bean-harvester	Mar. 28, 1871
121,442	Wood, James A., Crosswicks, N. J. Gate	June 27, 1871
	Wood, James A., assignor to self, John Braislis, and Charles D. Lippincott, Crosswicks, N. J. Self-acting gate	Nov. 28, 1871
111,709	Wood, John, Pella, Iowa. Machine for cutting corn-stalks	Feb. 7, 1871
114,739	Wood, John, jr., Conshohocken, Pa. Tuyere	May 9, 1871
117,028	Wood, John A., Pittsburgh, Pa. Adjustable dam	July 11, 1871
111,416	Wood, John W., New Leeds Corner, and Gabriel Moore, Fairview School-House, Md. Corn and phosphate drill	Jan. 31, 1871
114,075	Wood, Jonathan E., Webster, Ohio. Fire-place	April 25, 1871
121,836	Wood, Joseph, and James, <i>et al.</i> (See Gardner, Lowe, Wood & Pickering.)	
	Wood, Joseph, assignor to self and Edwin R. Bennet, Red Bank, N. J. Railway-crossing	Dec. 12, 1871
111,893	Wood, Joseph S., Philadelphia, Pa. Vapor-burner	Feb. 14, 1871
	Wood, Levi, <i>et al.</i> (See Shortt, Edward G., assignor.) (Two cases.)	
117,847	Wood, Malcolm H., Carlisle, Ohio. Clothes-drier	Aug. 8, 1871
113,959	Wood, Milton G., Boston, Mass. Machine for turning crank-pins	April 18, 1871
120,357	Wood, Myron G., Church Corners, Mich. Animal-power	Oct. 24, 1871
	Wood, Oscar D., and Joseph S. Oakley. (See Oakley & Wood.)	
121,143	Wood, Peter, Jersey City, N. J. Stone-crusher	Nov. 21, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
	Wood, Ralph T., <i>et al.</i> (See Madden, De Marcus, assignor.)	
120,358	Wood, Robert J., Hancock, Mich. Gate	Oct. 24, 1871
118,419	Wood, Rost O., Niagara Falls, N. Y. Cutting-shears	Aug. 22, 1871
	Wood, Samuel. (See Tule, George H., assignor.)	
119,101	Wood, Seymour G., Rochester, N. Y. Gate	Sept. 19, 1871
117,848	Wood, Stephen S., Brooklyn, N. Y. Ditching-machine	Aug. 8, 1871
5,244	Wood, Thomas E., Chicago, Ill. Show-case (Design)	Aug. 29, 1871
116,657	Wood, Timothy C., Augusta, Mich. Fence	July 4, 1871
120,693	Wood, Walter A., Hoosick Falls, N. Y. Oil-hole cover for journal-boxes	Nov. 7, 1871
110,712	Wood, Walter A., and William A., Hoosick Falls, N. Y. Guiding-wheel for harvesters	Jan. 3, 1871
110,713	Wood, Walter A. and William A., and John M. Rosebrooks, Hoosick Falls, N. Y. Harvester	Jan. 3, 1871
110,714	Same.....same	Jan. 3, 1871
110,715	Same.....same	Jan. 3, 1871
110,716	Wood, William Anson, Hoosick Falls, N. Y. Harvester-rake	Jan. 3, 1871
117,585	Wood, William E., Baltimore, Md. Base-burning fire-place heater	Aug. 1, 1871
	Wood, W. J. (See Chapman, Luke, assignor.)	
116,129	Wood, William S., Newtown, N. Y. Furnace for melting ores and metals	June 20, 1871
111,710	Woodard, Alonzo B., Alfred Centre, N. Y., and William Bruen, Newark, N. J., said Bruen assignor to said Woodard. Harness-snap	Feb. 7, 1871
114,076	Woodard, Alvin N., Fentonville, Mich. Corn-harvester	April 25, 1871
115,144	Woodard, Philander G., Waterford, Pa. Butter-worker	May 23, 1871
118,173	Woodburn, Jacob, assignor to Woodburn Sarven Wheel Company, Indianapolis, Ind. Machine for throating spokes	Aug. 15, 1871
118,089	Woodbury, Daniel, Peabody, Mass. Tanning	Aug. 15, 1871
	Woodbury, George B. (See Diller, George W., assignor.)	
	Woodbury, George E., and Solomon A. Woods. (See Woods & Woodbury.)	
117,498	Woodbury, James A., Boston, Mass. Elastic car-wheel	July 25, 1871
117,586	Same.....Molding-machine	Aug. 1, 1871
112,001	Woodbury, Joseph P., West Roxbury, Mass. Condensing double-end locomotive-engines. (Antedated Feb. 6, 1871)	Feb. 21, 1871
	Woodbury, Oscar D. and Edwin C., New York, N. Y. Tuck-folder for sewing-machines	Dec. 5, 1871
114,897	Woodcock, Robert B., Grand Rapids, Mich. Lumber-rack	May 16, 1871
112,002	Woodhead, John C., Pittsburgh, Pa. Slide-valve. (Antedated Feb. 18, 1871)	Feb. 21, 1871
112,402	Same.....Steam-generator	Mar. 7, 1871
115,145	Same.....Allegheny City, Pa. Steam-engine	May 23, 1871
115,921	Woodhouse, John V., assignor to self, Radcliffe B. Lockwood, and William A. Scott, Mine la Motte, Mo. Furnace for smelting lead-ores	June 13, 1871
121,443	Same.....Construction of rolls	Nov. 23, 1871
122,302	Woodhull, Alonzo E., Spencer, Mich. Bee-hive	Dec. 26, 1871
120,843	Woodman, Andrew J., Indian Orchard, Mass. Let-off mechanism for looms	Nov. 14, 1871
	Woodman, Charles E. (See Butterfield, William, assignor.)	
	Same.....(See Miller, William, assignor.)	
	Woodman, Charles E., <i>et al.</i> (See Keniston, Charles E., assignor) (Two cases.)	
114,077	Woodman, Horace, Saco, Me. Dividing-wheel of weft-thread knitting-machines	April 25, 1871
120,475	Woodruff, Andrew H., Lansing, Iowa. Pipe-wrench attachment for monkey-wrenches	Oct. 31, 1871
113,714	Woodruff, George W., assignor to John Farris, Hartford, Conn. Reed-organ	April 11, 1871
117,587	Same.....Organ	Aug. 1, 1871
121,700	Same.....Reed-organ	Dec. 5, 1871
114,381	Woodruff, Horace, Sandwich, Ill. Wind-wheel	May 2, 1871
112,761	Woodruff, James E., assignor of one-half interest to James F. Rowley, Buffalo, N. Y. Portable steam-generator. (Antedated March 6, 1871)	Mar. 14, 1871
4,720	Woodruff, Lucius L., Cleveland, Ohio. Inkstand (Design)	Mar. 14, 1871
114,633	Woodruff, Luther J., assignor of one-half interest to Francis S. Wilcox, Mohawk, N. Y. Snow-plow and rail-cleaner	May 9, 1871
4,241	Woodruff, Theodore T., Philadelphia, Pa. Railroad car-seat and couch. (Reissue)	Jan. 24, 1871
	Woods, Edward P., <i>et al.</i> (See Goodhue, Charles W., assignor) (Design.)	
	Same.....(See Latham & Lugg, assignors.)	
	Same.....same (Two cases.) (Reissue.)	
	Same.....(See Latham, Cyrus H., assignor) (Design.)	
	Same.....(See Goodhue, Charles W., assignor.)	
	Same.....(See Latham, Cyrus H., assignor.)	
	Same.....(See Sherwood & Dudley, assignors) (Design.)	
	Same.....(See Dudley, George D., assignor) (Design.)	
115,671	Woods, George, Cambridgeport, Mass. Cabinet-organ	June 6, 1871
116,785	Woods, George, Saint Catharines, Canada. Saddle-tree	July 4, 1871
121,444	Woods, Joseph T., and Ernest H. Leseman, Toledo, Ohio. Coffee-pot holder. (Antedated Nov. 26, 1871)	Nov. 23, 1871
117,588	Woods, Justus O., New York, N. Y. Ripping-tool	Aug. 1, 1871
114,078	Woods, Peter N., Fairfield, Iowa. Valve and steam-chest for engines	April 25, 1871
	Woods, Sherwood & Latham. (See Latham & Dudley, assignors) (Design.)	
111,894	Woods, Solomon A., Boston, Mass. Planing-machine	Feb. 14, 1871
117,230	Woods, Solomon A., Boston, and George E. Woodbury, Cambridge, Mass. Planing-machine	July 18, 1871
	Woods, Theodore, and Robert Jenkins. (See Jenkins & Woods.)	
118,323	Woods, Thomas, Nicholasville, Ky. Machine for dressing stone	Aug. 22, 1871
	Woods, Thomas, <i>et al.</i> (See Hannen, Henry, assignor.)	

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
114,503	Woodson, Frederick A., Selma, Ala. Steam-boiler.....	May 2, 1871
118,324	Woodsum, Daniel and Frank M., Harrison, Me. Water-wheel.....	Aug. 22, 1871
114,079	Woodsum, E. H., assignor to self and F. H. Whitman, Harrison, Me. Gain-cutter.....	April 25, 1871
110,945	Woodward, Alfred S., New York, N. Y. Presser and stitch-divider for sewing-machines.....	Jan. 10, 1871
4,500	Woodward, Alfred S., Brooklyn, N. Y. Presser and stitch-divider for sewing-machines.....(Reissue.)	Aug. 1, 1871
111,599	Woodward, Arthur T., Pella, Iowa. Vessel for holding oil.....	Feb. 7, 1871
	Woodward, Benjamin. (See Coffin, David N. B., assignor).....(Reissue.)	
	Woodward, David A., Baltimore, Md. Solar camera.....(Extension.)	Feb. 23, 1871
	Same.....same.....(Disclaimer filed).....	Feb. 23, 1871
	Woodward, Erastus, and Duncan H. Campbell. (See Campbell & Woodward.) (Two cases.)	
121,977	Woodward, Erastus, and Nathaniel Millett, Charlestown, Mass. Incubator.....	Dec. 19, 1871
119,957	Woodward, L. Fletch, McMinnville, Tenn. Photographic tent.....	Oct. 17, 1871
120,224	Same.....Stereoscopic-picture case.....	Oct. 24, 1871
120,558	Same.....Portable photographic dark-chamber.....	Oct. 31, 1871
116,386	Woodward, Stephen, Manchester, N. H. Manufacture of latch needles for knitting-machines.....	June 27, 1871
120,142	Woodworth, William H., Pewamo, Mich. Spring-bed bottom.....	Oct. 17, 1871
111,503	Wolf, Jacob, Burr Oak, Mich. Mechanical movement.....	Jan. 31, 1871
115,406	Same.....same.....(Antedated May 17, 1871).....	May 30, 1871
116,130	Same.....Propelling apparatus for land-conveyances. (Antedated June 7, 1871).....	June 20, 1871
117,849	Woolsey, Johnston V., Sandusky, Ohio. Wheel-hub.....	Aug. 8, 1871
117,850	Same.....Cutter-head.....	Aug. 8, 1871
112,666	Woolston, George F., Washington, D. C. Blind-slat machine.....	Mar. 14, 1871
	Wooster, George H. (See Walker, William, assignor.)	
118,174	Wooster, Letsome T., Ansonia, Conn. Process for casting brass ingots.....	Aug. 15, 1871
	Worden, William H. (See Butterfield, William, assignor.)	
115,922	Worell, Joseph, Philadelphia, Pa. Paper-cutter. (Antedated May 30, 1871).....	June 13, 1871
110,946	Works, Alfred J., New York, N. Y., and Henry A. Daniels, Washington, D. C. Apparatus and process for generating and burning vapor fuel.....	Jan. 10, 1871
122,208	Worley, James T., Cleveland, Ohio. Railway passenger-car.....	Dec. 26, 1871
120,559	Worley, William S., Arcola, Ill. Road-scraper.....	Oct. 31, 1871
	Wormley, Samuel P. (See Anesley, George W., assignor.)	
113,234	Worrell, John, and James H. Rynerson, Clayton, Ind. Sulky-attachment for plows.....	Mar. 23, 1871
113,235	Same.....Sulky-attachment for plows.....	Mar. 23, 1871
120,560	Same.....same.....	Oct. 31, 1871
120,561	Worster, Alvah, Syracuse, N. Y. Trace-buckle. (Antedated Oct. 27, 1871).....	Oct. 31, 1871
	Worth, Samuel A., et al. (See Trafford, Thomas, assignor.)	
110,717	Worth, William Ellison, San Francisco, Cal. Car-wheel mold.....	Jan. 3, 1871
117,711	Worthen, Samuel A., Thomson, Ill. Gang-plow.....	Aug. 1, 1871
120,844	Worthen, William E., New York, N. Y. Vertical hoist.....	Nov. 14, 1871
121,305	Same.....Nail for securing weather tiling and siding.....	Nov. 23, 1871
121,306	Same.....Apparatus for controlling the velocity of steam-engines.....	Nov. 23, 1871
121,072	Worthing, Alfred M., Reno, Nev. Tuyere. (Antedated Nov. 13, 1871).....	Nov. 21, 1871
116,131	Worthington, Henry R., New York, N. Y. Steam pumping-engine.....	June 20, 1871
120,359	Worthley, Nathaniel T., Brunswick, Me. Meat-chopper.....	Oct. 24, 1871
120,806	Worthman, John E., assignor to self, Orville F. Cawthorn, and Randolph G. Reading, Mobile, Ala. Reefing sails.....	Nov. 7, 1871
120,014	Wren, Thomas, Hamilton, Nev. Concentrating silver-ores.....	Oct. 17, 1871
120,409	Wren, William C., and George W., said George W. Wren assignor to said William C. Wren, Brooklyn, N. Y. Manufacture of illuminating-gas from petroleum.....	Oct. 31, 1871
110,947	Wright, Abram and George F., assignors to selves and John H. McNabb, Clinton, Mass. Paper-polishing machine.....	Jan. 10, 1871
	Wright, Abram and George F., et al. (See Burt & Wright).....(Extension.)	
121,922	Wright, Alexander, Wilmington, Del. Carriage-door.....	Dec. 12, 1871
115,407	Wright, Ann E., Hamlin, N. Y. Remedy for worms. (Antedated May 22, 1871).....	May 30, 1871
114,030	Wright, Baxter and William C. Park, Cardiff, N. Y. Gavel-fork.....	April 25, 1871
122,142	Wright, Benjamin F., assignor to Charles H. Drew and Francis T. Morton, Winchester, Mass. Process of treating raw hides.....	Dec. 26, 1871
115,923	Wright, Charles D., Leesville, Mass. Stove-waiter or shelf.....	June 13, 1871
112,762	Wright, Claiborne, Mason, Ill. Gate.....	Mar. 14, 1871
115,006	Wright, Daniel, assignor to Orlando A. Kneeland, Waltham, Mass. Shuttle for looms.....	May 16, 1871
118,175	Wright, Edgar Alfred, Fort Madison, Iowa. Stalk-cutter.....	Aug. 15, 1871
117,712	Wright, Edmund, Philadelphia, Pa. Liquor-cooler.....	Aug. 1, 1871
117,231	Wright, Edward, assignor to Johnson & Bassett, Worcester, Mass. Self-acting mule for spinning.....	July 18, 1871
116,250	Wright, Edwin L., Sterling, Ill. Spring-bed bottom.....	June 20, 1871
118,892	Wright, Edwin L., assignor of one-fourth interest to E. A. Crawford, Sterling, Ill. Machine for stuffing mattresses, &c.....	Sept. 12, 1871
114,740	Wright, E. M., assignor to self and Gardner Herrick, Castile, N. Y. Ticket-holder.....	May 9, 1871
119,487	Wright, E. M., assignor to self and Gardner Herrick, Geneva, N. Y. Wash-boiler.....	Oct. 3, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
111,294	Wright, Finley J., and Livingston W. Wandell, New York, N. Y. Car-starter. (Antedated Jan. 21, 1871)	Jan. 24, 1871
4,914	Wright, George Curtis, New York, N. Y. Carpet-pattern..... (Design)	May 16, 1871
5,061	Wright, George C., assignor to E. S. Higgins & Co., New York, N. Y. Carpet-pattern..... (Design)	June 27, 1871
5,062	Same..... Carpet-pattern..... (Design)	June 27, 1871
5,063	Same..... same..... (Design)	June 27, 1871
5,064	Same..... same..... (Design)	June 27, 1871
5,121	Same..... same..... (Design)	July 11, 1871
5,122	Same..... same..... (Design)	July 11, 1871
5,123	Same..... same..... (Design)	July 11, 1871
5,124	Same..... same..... (Design)	July 11, 1871
5,125	Same..... same..... (Design)	July 11, 1871
5,126	Same..... same..... (Design)	July 11, 1871
5,245	Same..... Carpet..... (Design)	Aug. 29, 1871
5,246	Same..... same..... (Design)	Aug. 29, 1871
5,247	Same..... same..... (Design)	Aug. 29, 1871
5,248	Same..... same..... (Design)	Aug. 29, 1871
5,249	Same..... same..... (Design)	Aug. 29, 1871
5,250	Same..... same..... (Design)	Aug. 29, 1871
	Wright, George W., et al. (See Starr, William M., assignor.)	
120,143	Wright, Gustavus H., and Amory K. Johnson, New Orleans, La. Cane-stubble hoe.....	Oct. 17, 1871
113,236	Wright, Henry X., assignor to self and James D. Wright, Memphis, Tenn. Lighting-attachment for alarm-clocks.....	Mar. 28, 1871
120,360	Wright, Hugh, Warren, Ohio. Rotary steam-valve and cut-off.....	Oct. 24, 1871
113,383	Wright, James A., Marietta, Ohio. Combined cotton-seed planter and cultivator.....	April 4, 1871
112,202	Wright, Larnard M., Fort Edward, N. Y. Water-wheel.....	Feb. 23, 1871
	Wright, Lysander, et al. (See Smith, Charles B., assignor.)	
116,132	Wright, Nathan A., et al. (See Stevens, Benjamin D., et al.)	
116,132	Wright, Parker O., Oswego, N. Y. Hand-stamp.....	June 20, 1871
116,133	Wright, Rufus, Brooklyn, N. Y. Folding easel.....	June 20, 1871
117,133	Same..... Easel picture-frame.....	July 18, 1871
119,681	Wright, Sheffield H., assignor to American Bolt Company, Lowell, Mass. Machine for threading bolts.....	Oct. 3, 1871
121,923	Wright, Thomas L., New York, N. Y. Advertising-lantern.....	Dec. 12, 1871
4,286	Wright, Wendell, New York, N. Y. Mode of securing springs in upholstery. (Reissue)	Feb. 28, 1871
120,923	Wright, Wendell, Phœnicia, N. Y. Bottle-stopper.....	Nov. 14, 1871
120,924	Wright, Wendell, Bloomfield, N. J. Folding bed.....	Nov. 14, 1871
111,711	Wright, Wesley A., Lynchburgh, Va. Medicated smoking-tobacco.....	Feb. 7, 1871
111,712	Same..... Treating smoking-tobacco.....	Feb. 7, 1871
	Wright, Wiley S., and Charles H. Buck. (See Clement, Franklin, assignor.)	
116,909	Wright, Wiley S., et al. (See Ellis, Paschal P., assignor.)	
119,908	Wright, William, New York, N. Y. Steam-condenser.....	July 11, 1871
	Same..... Cut-off for steam-engines.....	Oct. 10, 1871
121,144	Wright, William M., Galesburgh, Ill. Sawing-machine.....	Nov. 21, 1871
113,237	Wright, William M., assignor to self and Harrison Phœbus, Chambersburgh, Pa. Liquid-measure.....	Mar. 28, 1871
119,909	Wright, William R., Barnwell County, and David A. Warnock, Beaufort County, S. C. Horse-power.....	Oct. 10, 1871
112,403	Wrightson, William D., Queenstown, Md. Animal-trap.....	Mar. 7, 1871
	Wuest, Herman, and Theodore A. Schroeder. (See Schroeder & Wuest.)	
5,285	Wunder, Adolph, assignor to Sargent & Co. New Haven, Conn. Fire-iron stand.....	Sept. 26, 1871
5,286	Same..... Fire-iron stand..... (Design)	Sept. 26, 1871
5,287	Same..... Base for bird-cage brackets..... (Design)	Sept. 26, 1871
5,295	Same..... Door-bolt..... (Design)	Sept. 26, 1871
5,347	Same..... Sash-lift..... (Design)	Oct. 31, 1871
5,351	Same..... Fire-dog..... (Design)	Nov. 7, 1871
121,224	Wunderlich, Gennaro, assignor to self and Lewis H. Manch, Philadelphia, Pa. Eye-letting-machine.....	Nov. 21, 1871
	Wundram, George W., and John Griffith. (See Griffith & Wundram.)	
118,417	Wyatt, Robert, New York, N. Y. Clipping-shears. (Antedated Aug. 11, 1871)	Aug. 22, 1871
114,244	Wyckoff, Cornelius, jr., Fairview, Ill. Combined harrow.....	April 25, 1871
	Wyeth, Henry M. (See Bean, Homer, assignor.)	
113,609	Wyker, Abraham F., South Easton, Pa. Wine-press.....	April 11, 1871
114,382	Wyland, George G., and Thomas M. Rathmell, Williamsport, Pa. Propeller for canal-boats.....	May 2, 1871
	Wylde, James, et al. (See Rawson, Ovenden, Wylde, McCree & Hill.)	
115,408	Wylie, John, Béthel, Conn. Table-sink.....	May 30, 1871
	Wyman, Franklin C., and Myron W. Lyman. (See Lyman & Wyman.)	
111,417	Wyman, Horace, Worcester, Mass. Box-operating mechanism for looms.....	Jan. 31, 1871
111,295	Wyman, Isaac J., New York, N. Y. Paint for ships' bottoms.....	Jan. 24, 1871
	Wyman, Martin L. (See Moore, Charles E., assignor)..... (Two cases.)	
118,090	Yaesché, Friedrich, Springfield, Mass. Brake for bending sheet-metal.....	Aug. 15, 1871
115,007	Yale, Charles O., New York, N. Y. Self-locking screw-bolt for safes.....	May 16, 1871
119,258	Same..... Lock-spindle for safes.....	Sept. 26, 1871
	Yale Iron Works. (See Wilson, Albert A., assignor)..... (Design)	
119,212	Yale, Linus, jr., deceased, by Silas N. Brooks, administrator, Shelburne Falls, Mass. Post-office letter-box.....	Sept. 19, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
120,177	Yale, Linus, jr., deceased, by Silas N. Brooks, administrator, Shelburne Falls, Mass. Lock for post-office boxes, &c.	Oct. 24, 1871
116,387	Yale Lock-Manufacturing Company. (See Herman & Taylor, assignors.)	
119,213	Yancey, Edwin L., Batavia, N. Y. Pruning-shears	June 27, 1871
112,667	Yardley, Richard T., Baltimore, Md. Bale-hook	Sept. 19, 1871
119,214	Yarrell, Pierce W., Littleton, N. C. Water-wheel	Mar. 14, 1871
	Yates, Daniel C., Big Lick, Va. Compound for preserving tomatoes	Sept. 19, 1871
114,245	Yates, Henry W. (See Mitchell, Andrew W., assignor.)	
	Yates, John, and Edgar Duell, Brooklyn, N. Y. Condenser for stills	April 25, 1871
	Yates, Walter Edward, and John Storey Davies. (See Davies & Yates.)	
118,664	Yeager, James M., Lanesville, Ind. Churn	Aug. 29, 1871
114,383	Yeager, William E., Lawrence, Kan. Bolt-cutter	May 2, 1871
119,682	Yeilding, Richard, New York, N. Y. Manufacture of soft iron and steel castings.	Oct. 3, 1871
120,807	Same..... Detroit, Mich. Crucible for melting metals, &c.	Nov. 7, 1871
4,434	Yeilding, Richard, assignor to Frank W. Isham and Elizabeth Yeilding, Detroit, Mich. Manufacture of iron and steel. (Reissue.)	June 20, 1871
115,262	Yeiser, Frederick, and Stephen W. Hedger, said Hedger assignor to said Yeiser, Lancaster, Ky. Lamp. (Antedated May 11, 1871.)	May 23, 1871
113,610	Yentzer, Enoch S., Ottawa, Ill. Attachment for sewing-machines.	April 11, 1871
111,797	Yeoman, William P., Waukegan, Ill. Paper-trimming machine.	Feb. 14, 1871
4,469	Yeomans, Theron G., Walworth, N. Y. Grape and vine trellis.	July 11, 1871
114,741	Yerkes, Silas, jr., Philadelphia, Pa. Railway-car spring	May 9, 1871
116,000	Yeugst, Cyrus, Annville, Pa. Horse hay-fork.	June 13, 1871
114,742	Yglesias, José, New York, N. Y. Breech-loading fire-arm.	May 9, 1871
	Yockel, Charles, and John Weidig. (See Klinck, Frederick, assignor.)	
116,134	Yocom, James, jr., Philadelphia, Pa. Split castings.	June 20, 1871
	York, Edgar F. (See Knapp, Myron H., assignor.) (Reissue.)	
120,178	Yost, Peter C., assignor to self and William B. Raper, Carthage, Ill. Fence.	Oct. 24, 1871
117,232	Yost, William, Butlerville, Ohio. Buckle	July 18, 1871
121,567	Same..... Goshen, Ohio. Plow. (Antedated Nov. 25, 1871.)	Dec. 5, 1871
118,091	Youll, James, Manchester, Iowa. Grain-binder	Aug. 15, 1871
118,999	Younce, John A., and George W. Smith, Hartford, Conn. Vise	Sept. 12, 1871
	Young, Alexander, et al. (See Eley, Philip, assignor.)	
110,885	Young, Ananias Z., Liberty, Miss. Washing-machine	Jan. 10, 1871
	Young, Calvin, and Cyrenus Wheeler, jr. (See Wheeler & Young.)	
119,068	Young, Calvin S., Henry Wissinger, and Thomas T. Williams, Minta, Pa. Churn.	Sept. 19, 1871
110,718	Young, Charles M., Meadville, Pa. Harvester.	Jan. 3, 1871
116,388	Young, Charles M., assignor to self and Charles Gable, Meadville, Pa. Roller-attachment for plows.	June 27, 1871
118,418	Young, David, Kingston, Mo. Weather-strip	Aug. 22, 1871
118,572	Young, Edward E., York, Me. Mechanical movement.	Aug. 29, 1871
110,813	Young, George S., assignor to self and Ai Fitch Boynton, Clearfield, Pa. Cut-off valve for steam-engines.	Jan. 3, 1871
110,814	Same..... Mill-spindle step	Jan. 3, 1871
4,612	Young, George W., Saint Louis, Mo. Fence-cap	Jan. 24, 1871
115,008	Young, Gottlieb M., El Paso, Ill. Hammer	May 16, 1871
119,910	Young, Hugh, Stamford, Conn., and James L., New York, N. Y. Machine for cutting stone. (Antedated September 25, 1871)	Oct. 10, 1871
113,715	Young, John, Buffalo, N. Y. Trunk	April 11, 1871
	Young, John S., and John E. Lawrence. (See Lawrence & Young.)	
	Young, Jonas C., and Elbridge Wolcott. (See Bellamy, John H., assignor.) (Three cases.) (Design.)	
116,786	Young, Julie D., San Francisco, Cal. Toilet-paste	July 4, 1871
118,502	Young, McClintock, Frederick, Md. Machine for making matches	Aug. 29, 1871
111,713	Young, Oliver H., and Daniel J. Vaughn, Wisconsin Hill, Cal. Device for saving gold-amalgam and quicksilver.	Feb. 7, 1871
114,898	Young, Peter, Austin, Minn. Fanning-mill.	May 16, 1871
119,069	Young, Peter, and Noah Doll, assignors to selves, John Rhodes, and Frederick J. S. Wagner, Robertsville, Ohio. Washing-machine	Sept. 19, 1871
119,070	Same..... same.	Sept. 19, 1871
	Young, Peter F. (See Goldsmith, Francis J., assignor.)	
114,246	Young, Robert W., Rising Sun, Ind. Composition black-board.	April 25, 1871
111,895	Young, Samuel M., Jacksonville, Ill. Scroll-sawing machine. (Antedated Feb. 2, 1871.)	Feb. 14, 1871
120,808	Young, Sapphira, Elmira, N. Y. Skirt-supporting corset.	Nov. 7, 1871
	Young, Solomon, and John F. Metherd. (See Metherd & Young.)	
114,504	Young, Solomon W., Providence, R. I. Paper-file	May 2, 1871
	Young, Solomon W., and Stephen N. Smith. (See Smith & Young.)	
114,247	Young, William, Easton, Pa. Hot-air register.	April 25, 1871
117,233	Same..... Compression-bibb	July 18, 1871
4,307	Younglove, M. C., assignor to Frederick H. Manny, Rockford, Ill. Seed-drill. (Reissue.)	Mar. 21, 1871
118,573	Youngs, Quinten M., Utica, N. Y. Blind-slat operator.	Aug. 29, 1871
119,551	Yount, John I., Tippecanoe City, Ohio. Machine for dressing millstones.	Oct. 3, 1871
	Yount, William, and Amos L. Keepports. (See Keepports & Yount.)	
	Yule, John. (See Larrabee, Charles, assignor.)	
	Zaepfel, Hilaire. (See Iske, Anthony, assignor.)	
118,325	Zahn, Henry, San Francisco, Cal. Screw-propeller.	Aug. 22, 1871
	Same..... Philadelphia, Pa. Heating-stove	Dec. 12, 1871
112,862	Zay, Frederic B., Findlay, Ohio. Ruffing-attachment for sewing-machines.	Mar. 21, 1871
120,144	Zeller, Daniel, assignor to self and Daniel Miller, Marlborough Township, Pa. Pincers.	Oct. 17, 1871

Alphabetical list of patentees for the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
113,126	Zeigler, Elias, and Charles Cable, Harmony, Pa. Grappling-hook.....	Mar. 28, 1871
	Zeisse, Siegmund, and Theodore Bergner. (<i>See Bergner & Zeisse.</i>)	
112,521	Zell, Abraham N., Lancaster, Pa. Tobacco-press.....	Mar. 7, 1871
114,334	Zeller, John P., South Bend, Ind. Cup for grain-drills, &c. (Antedated April 18, 1871).....	May 2, 1871
113,127	Zengeler, John, Chicago, Ill. Coloring and staining marble. (Antedated March 25, 1871).....	Mar. 28, 1871
5,265	Zeuner, Charles, assignor to Innes & Magill, Cincinnati, Ohio. Grate-front. (Design).....	Sept. 12, 1871
	Zimmer, George, and Oscar J. Pennell. (<i>See Pennell & Zimmer.</i>)	
113,665	Zimmerman, John, Powhatan, Md. Carriage-curtain fastening.....	Aug. 29, 1871
112,522	Zimmerman, William, Lebanon, Pa. Combined bag-holder and scale. (Antedated Feb. 25, 1871).....	Mar. 7, 1871
110,719	Zimmermann, Carl F., Philadelphia, Pa. Musical notation for accordeons.....	Jan. 3, 1871
122,095	Zinn, John W., Morrison's Mills, Fla. Connecting-rod.....	Dec. 19, 1871
121,445	Zipser, Albert, Austria. Steam-boiler sediment-collector.....	Nov. 28, 1871
120,145	Zschech, Gustavus H., Indianapolis, Ind. Universal safety-coupling....	Oct. 13, 1871
122,303	Same.....Thrashing-machine.....	Dec. 26, 1871
113,611	Zug, Christopher, Pittsburgh, Pa. Machine for scraping iron.....	April 11, 1871
116,359	Zumstein, John H., New York, N. Y. Meat and vegetable sausage.....	June 27, 1871
	Zwiebel, Alphons M., and Louis C. Brastow. (<i>See Brastow & Zwiebel.</i>)	

LIST OF TRADE-MARKS REGISTERED DURING THE YEAR 1871.

No.	Name, residence, and title.	Date of filing.	Date of registration.
306	Abendroth Brothers, New York, N. Y. Ranges and stoves.....	Jan. 30, 1871	June 6, 1871
307	Same.....same.....	Jan. 30, 1871	June 6, 1871
600	Adams, John W., Indianapolis, Ind. Boots and shoes.....	Dec. 4, 1871	Dec. 26, 1871
446	Adams, William H., and Frank A. Young, Bangor, Me. Lini- ment.....	Sept. 5, 1871	Sept. 26, 1871
472	Aikin, Lambert & Co., New York, N. Y. Watches and jewelry....	Sept. 15, 1871	Oct. 17, 1871
527	Allen, Shapleigh & Co., Boston, Mass. Teas.....	Oct. 21, 1871	Nov. 14, 1871
285	American Club Fish Company, New York, N. Y. Preserved fish...	April 22, 1871	May 23, 1871
197	American Graphite Company, New York, N. Y. Plumbago grease...	Feb. 18, 1871	Mar. 21, 1871
318	American Standard Tool Company, Newark, N. J. Pistol.....	April 15, 1871	June 6, 1871
290	Anderson, S. H. & Co., Palmyra, Mo. Flour.....	April 19, 1871	May 30, 1871
231	Armistead, Louis Lee, Lynchburgh, Va. Tobacco.....	April 13, 1871	May 2, 1871
512	Same.....Smoking-tobacco.....	Oct. 17, 1871	Nov. 7, 1871
553	Ashcroft, John, Brooklyn, N. Y. Coffee.....	Nov. 3, 1871	Nov. 28, 1871
447	Atchison & Brothers, Frankfort, Ind. Cholera-medicine.....	Sept. 4, 1871	Sept. 26, 1871
436	Atmore & Son, Philadelphia, Pa. Mince-meat.....	Aug. 8, 1871	Aug. 29, 1871
123	Averill Chemical Paint Company, New York, N. Y., and Cleveland, Ohio. Paint.....	Dec. 19, 1871	Jan. 10, 1871
129	Same.....Liquid chemical paint.....	Dec. 19, 1871	Jan. 10, 1871
130	Same.....Chemical paint.....	Dec. 19, 1871	Jan. 10, 1871
143	Same.....Averill chemical paint.....	Dec. 12, 1871	Jan. 24, 1871
224	Same.....Paint.....	Jan. 6, 1871	April 18, 1871
384	Same.....same.....	June 24, 1871	July 18, 1871
266	Backus, Frederick M., Cleveland Ohio. Lubricating-oil.....	Mar. 27, 1871	May 23, 1871
175	Baeder, Adamson & Co., Philadelphia, Pa. Glue.....	Feb. 6, 1871	Feb. 28, 1871
372	Baker, Francis, Boston, Mass. Salt.....	July 3, 1871	July 18, 1871
473	Baker, George, and Isaac Bullock, Lima, Pa. Soap.....	Sept. 7, 1871	Oct. 17, 1871
373	Baker, H. J. & Co., New York, N. Y. Castor-oil.....	June 9, 1871	July 18, 1871
374	Same.....same.....	June 9, 1871	July 18, 1871
586	Balch, A. W. & Co., New York, N. Y. Whisky.....	Nov. 25, 1871	Dec. 19, 1871
587	Same.....same.....	Nov. 25, 1871	Dec. 19, 1871
588	Same.....Gin.....	Nov. 25, 1871	Dec. 19, 1871
589	Same.....same.....	Nov. 25, 1871	Dec. 19, 1871
590	Same.....Wine.....	Nov. 25, 1871	Dec. 19, 1871
601	Same.....Whisky.....	Nov. 25, 1871	Dec. 26, 1871
602	Same.....same.....	Nov. 25, 1871	Dec. 26, 1871
182	Baldwin, Nathan A., Milford, Conn., James H. Prentice, Brooklyn, N. Y., and John R. Waller, New York, N. Y. Hat.....	Jan. 26, 1871	Mar. 7, 1871
351	Baldwin, O. S., New York, N. Y. Clothing.....	May 31, 1871	June 27, 1871
267	Barclay, George C., New York, N. Y. Preparation for the hair....	April 13, 1871	May 23, 1871
424	Barksdale, Ford C., New York, N. Y. Newspaper.....	Aug. 5, 1871	Aug. 22, 1871
232	Barnes, Demas, Brooklyn, N. Y. Balm.....	Mar. 21, 1871	May 2, 1871
233	Same.....Liniment.....	Mar. 21, 1871	May 2, 1871
234	Same.....Insect-powder.....	Mar. 21, 1871	May 2, 1871
235	Same.....Preparation for the hair.....	Mar. 21, 1871	May 2, 1871
474	Barnes, Wallace, Bristol, Conn. Clock-springs.....	Aug. 29, 1871	Oct. 17, 1871
513	Bartlett, Robbins & Co., Baltimore, Md. Kitchen-ranges.....	Aug. 24, 1871	Nov. 7, 1871
131	Batcheller Manufacturing Company, New York, N. Y. Agricul- tural forks.....	Dec. 17, 1870	Jan. 10, 1871
176	Bates, Benjamin, Baltimore, Md. Beer.....	Feb. 7, 1871	Feb. 28, 1871
268	Same.....same.....	April 21, 1871	May 23, 1871
375	Baxter, James P., Portland, Me. Sugar-corn.....	June 23, 1871	July 18, 1871
207	Bernecker, John L., Saint Louis, Mo. Whisky.....	Mar. 10, 1871	Mar. 28, 1871
155	Bidwell, John C., Pittsburgh, Pa. Plows and other agricultural im- plements.....	Jan. 13, 1871	Feb. 14, 1871
387	Billings, Henry M., New York, N. Y. Medicine.....	July 8, 1871	July 25, 1871
495	Bishop, George Riker, New York, N. Y. Mineral water.....	Oct. 3, 1871	Oct. 24, 1871
545	Bishop, William A., Dodgeville, Wis. Medicines.....	Sept. 30, 1871	Nov. 21, 1871
341	Bissell & Moore Manufacturing Company, New York, N. Y. Saws...	May 2, 1871	June 20, 1871
122	Blackwell, W. T., Durham, N. C. Durham tobacco.....	Dec. 14, 1870	Jan. 3, 1871
454	Same.....Smoking-tobacco.....	April 14, 1871	Oct. 3, 1871
254	Blanchard's, Porter, Sons, Concord, N. H. Churns.....	Nov. 8, 1870	May 16, 1871
198	Blatchley, Charles G., Philadelphia, Pa. Pumps.....	Feb. 28, 1871	Mar. 21, 1871
514	Bliss, Keene & Co., New York, N. Y. Cundurango.....	Oct. 23, 1871	Nov. 7, 1871
515	Same.....same.....	Oct. 23, 1871	Nov. 7, 1871
177	Blume & Co., New York, N. Y. Chicory.....	Feb. 8, 1871	Feb. 28, 1871
352	Bock, Genin & Co., New York, N. Y. Matches.....	May 27, 1871	June 27, 1871
376	Bostwick & Tilford, New York, N. Y. Mineral oils for illuminating.	June 17, 1871	July 18, 1871
377	Same.....same.....	June 17, 1871	July 18, 1871
255	Bourke, F. G. & Co., New York, N. Y. Metallic paint.....	Dec. 17, 1870	May 16, 1871
169	Bourne, George, Baltimore, Md. Fertilizers.....	Jan. 31, 1871	Feb. 21, 1871
591	Bouton, Whitehead & Co., Naperville, Ill. Pitchfork.....	Nov. 25, 1871	Dec. 19, 1871
216	Brayley, James, Buffalo, N. Y. Thrashing-machine.....	Mar. 17, 1871	April 11, 1871
308	Same.....same.....	Mar. 30, 1871	June 6, 1871

List of trade-marks registered during the year 1871—Continued.

No.	Name, residence, and title.	Date of filing.	Date of registration.
592	Bridgeford & Co., Louisville, Ky. Cooking and other stoves.....	Nov. 27, 1871	Dec. 19, 1871
442	Briggs & Brother, Rochester, N. Y. Seeds.....	Aug. 21, 1871	Sept. 19, 1871
443	Same.....same.....	Aug. 21, 1871	Sept. 19, 1871
403	Brown, B. F. & Co., Boston, Mass. Blacking and leather-dressing...	July 18, 1871	Aug. 1, 1871
404	Same.....same.....	July 18, 1871	Aug. 1, 1871
405	Same.....same.....	July 18, 1871	Aug. 1, 1871
475	Brown, John I. & Son, Boston, Mass. Bronchial troches.....	Sept. 7, 1871	Oct. 17, 1871
523	Brown, S. N. & Co., Dayton, Ohio. Wagons.....	Oct. 17, 1871	Nov. 14, 1871
467	Brown, William A., and Frederick R., Dickinson, Va. Tobacco.....	Sept. 12, 1871	Oct. 3, 1871
217	Bucher, Gibbs & Co., Canton, Ohio. Plows.....	Mar. 21, 1871	April 11, 1871
	Buckingham, Edwin B., and John Augustus Lynch. (<i>See Lynch & Buckingham.</i>)		
327	Bullocke, John, New York, N. Y. Linen goods and fabrics containing linen.....	May 27, 1871	June 20, 1871
	Burchfield & Rogers. (<i>See Rogers & Burchfield.</i>)		
573	Butcher, William & Co., Lewistown, Pa. Cast-steel and castings...	Nov. 20, 1871	Dec. 12, 1871
143	Butler & Haynes, Bangor, Me. Composition oil.....	Nov. 22, 1870	Feb. 7, 1871
425	Butler, Earhart & Co., Columbus, Ohio. Essence of coffee.....	June 26, 1871	Aug. 22, 1871
455	Same.....Coffee, spices, mustard, and cream-tartar.....	Sept. 9, 1871	Oct. 3, 1871
222	Callaghan & Brother, Philadelphia, Pa. Cassimeres.....	Mar. 23, 1871	April 18, 1871
291	Cameron, R. W. & Co., New York, N. Y. Twist tobacco.....	May 4, 1871	May 30, 1871
292	Same.....Kerosene.....	May 4, 1871	May 30, 1871
360	Canfield, William M., Philadelphia, Pa. Steam and hydraulic packing.....	June 20, 1871	July 4, 1871
370	Capel & Roebuck, Cincinnati, Ohio. Whisky.....	Feb. 27, 1871	July 11, 1871
371	Same.....same.....	Feb. 27, 1871	July 11, 1871
476	Carew, Andrew T., Bayport, N. Y. Fish.....	Aug. 24, 1871	Oct. 17, 1871
156	Carroll, John W., Lynchburgh, Va. Smoking-tobacco.....	Jan. 20, 1871	Feb. 14, 1871
157	Same.....same.....	Jan. 20, 1871	Feb. 14, 1871
158	Same.....same.....	Jan. 20, 1871	Feb. 14, 1871
159	Carson, Anderson, and William Lemon, Hartford, Conn. Ginger ale and winter beverage.....	Jan. 21, 1871	Feb. 14, 1871
388	Carter Brothers & Co., Boston, Mass. Ink.....	July 3, 1871	July 25, 1871
546	Same.....Mucilage.....	Oct. 30, 1871	Nov. 21, 1871
293	Charleston, S. C. Mining and Manufacturing Company, Philadelphia, Pa. Fertilizer.....	May 6, 1871	May 30, 1871
227	Cherrington, Robert E., South Boston, Mass. Stove-polish.....	April 3, 1871	April 25, 1871
574	Chiles, Edward, Philadelphia, Pa. Medicine.....	Nov. 18, 1871	Dec. 12, 1871
294	Chipman, George W., Boston, Mass. Carpet-linings.....	Jan. 23, 1871	May 30, 1871
456	Clark, Orion, Brattleborough, Vt. Compounds for hair and face dressings, &c.....	Aug. 28, 1871	Oct. 3, 1871
516	Clement, Colburn & Co., Boston, Mass. Gentlemen's boots.....	Oct. 12, 1871	Nov. 7, 1871
353	Clifton, Charles H., Pittsburgh, Pa. Writing-pens.....	June 3, 1871	June 27, 1871
554	Cloud, Akin & Co., Evansville, Ind. Medicine.....	Nov. 4, 1871	Nov. 28, 1871
361	Coes, A. G. & Co., Worcester, Mass. Screw-wrenches.....	June 17, 1871	July 4, 1871
529	Cohn, M. & Co., New York, N. Y. Corsets.....	Sept. 25, 1871	Nov. 14, 1871
256	Cole, H. C. & Co., Chester, Ill. Flour, &c.....	April 22, 1871	May 16, 1871
183	Coleman, Lewis & Co., Boston, Mass. Spool-cotton.....	Feb. 2, 1871	Mar. 7, 1871
236	Collender, Hugh W., New York, N. Y. Billiard-cushions.....	Mar. 29, 1871	May 2, 1871
523	Collins Company, Collinsville, Conn. Plows.....	July 21, 1871	Nov. 7, 1871
295	Comstock, Castle & Co., Quincy, Ill. Stoves.....	Dec. 10, 1870	May 30, 1871
398	Congress and Empire Spring Company, Saratoga Springs and New York, N. Y. Mineral water.....	June 10, 1871	July 25, 1871
269	Cooper, John, Mount Vernon, Ohio. Machinery.....	May 4, 1871	May 23, 1871
160	Crockett, David B., New Haven, Conn. Composition coating.....	Jan. 11, 1871	Feb. 14, 1871
457	Crump, Samuel, New York, N. Y. Labels and show-cards.....	Aug. 12, 1871	Oct. 3, 1871
416	Davis, Perry & Son, Providence, R. I. Medicine.....	July 25, 1871	Aug. 8, 1871
257	Demarest, James, New York, N. Y. Stomach-bitters.....	April 22, 1871	May 16, 1871
506	Denison, George M., Essex, Conn. Lubricating-compound.....	Sept. 2, 1871	Oct. 31, 1871
507	Diamond, Jacob, Pittsburgh, Pa. Spectacles.....	Sept. 25, 1871	Oct. 31, 1871
362	Dick, Dundas, New York, N. Y. Medicine.....	Dec. 30, 1870	July 4, 1871
184	Dobbins, Robert, Binghamton, N. Y. Salve.....	Jan. 14, 1871	Mar. 7, 1871
414	Domestic Sewing-Machine Company, Norwalk, Ohio. Sewing-machines.....	April 8, 1871	Aug. 1, 1871
530	Domestic Sewing-Machine Company, Toledo, Ohio. Sewing-machine attachments.....	Oct. 21, 1871	Nov. 14, 1871
389	Dorn, Julius, Louisville, Ky. Whisky.....	July 6, 1871	July 25, 1871
302	Douglas Ax-Manufacturing Company, Douglas, Mass. Axes.....	Dec. 8, 1870	May 30, 1871
303	Same.....same.....	Dec. 8, 1870	May 30, 1871
304	Same.....same.....	Dec. 8, 1870	May 30, 1871
555	Dreydoppel, William, Philadelphia, Pa. Soap.....	Oct. 31, 1871	Nov. 28, 1871
161	Droege, I. & Co., Covington, Ky. Stoves.....	Jan. 28, 1871	Feb. 14, 1871
170	Dunlap & Co., New York, N. Y. Hats, caps, and straw goods.....	Jan. 28, 1871	Feb. 21, 1871
448	Dunn & Co., London, England. Medicine.....	Dec. 23, 1870	Sept. 26, 1871
477	Dunn Edge-Tool Company, West Waterville, Me. Edge tools.....	Sept. 4, 1871	Oct. 17, 1871
562	Same.....Scythes.....	Nov. 4, 1871	Nov. 28, 1871
563	Same.....same.....	Oct. 30, 1871	Nov. 28, 1871
603	Durkee, E. R. & Co., New York, N. Y. Spices, groceries, and drugs.....	Dec. 2, 1871	Dec. 26, 1871
604	Same.....same.....	Dec. 2, 1871	Dec. 26, 1871
605	Same.....same.....	Dec. 2, 1871	Dec. 26, 1871

List of trade-marks registered during the year 1871—Continued.

No.	Name, residence, and title.	Date of filing.	Date of registration.
606	Durkee, E. R. & Co., New York, N. Y. Spices, groceries, and drugs..	Dec. 2, 1871	Dec. 26, 1871
496	Dutcher Temple Company, Hopedale, Mass. Loom-templates.....	Aug. 2, 1871	Oct. 24, 1871
449	Eagle Tanning Works, Chicago, Ill. Leather.....	Sept. 4, 1871	Sept. 26, 1871
237	Elias, William M. & Brother, New York, N. Y. Jewelry.....	Mar. 24, 1871	May 2, 1871
406	Elwell, Fiske & Worth, New York, N. Y. Umbrellas and parasols..	July 17, 1871	Aug. 1, 1871
407	Same.....same.....	July 17, 1871	Aug. 1, 1871
463	Estey, J. & Co., Brattleborough, Vt. Reed-organs.....	Sept. 13, 1871	Oct. 3, 1871
426	Evans, Thomas R., Philadelphia, Pa. Gaiters.....	June 20, 1871	Aug. 22, 1871
	Field, Isaac N. and William B., <i>et al.</i> (See Gibbs, Ross & Field.)		
328	Filley, Giles F., Saint Louis, Mo. Cooking-stoves.....	May 27, 1871	June 20, 1871
249	Fisk, Clark & Flagg, New York, N. Y. Cheviot shirtings.....	Dec. 3, 1870	May 9, 1871
270	Same.....Gentlemen's furnishing goods.....	May 6, 1871	May 23, 1871
271	Same.....same.....	May 6, 1871	May 23, 1871
296	Same.....same.....	May 11, 1871	May 30, 1871
297	Same.....same.....	May 11, 1871	May 30, 1871
444	Forster, Joseph, New Orleans, La. Cordial-gin.....	Aug. 24, 1871	Sept. 19, 1871
427	Foster, William and Henry, Denholme, near Bingley, England. Unions, lastings, and serge-de-Berries.....	Nov. 14, 1870	Aug. 22, 1871
565	Francis & Mallon, Boston, Mass. Boots and shoes.....	Sept. 27, 1871	Dec. 5, 1871
517	Fuller, Irad, New Haven, Conn. Wines, liquors, &c.....	Oct. 17, 1871	Nov. 7, 1871
216	Fusiyama Tea Importing Company, Pittsburgh, Pa. Tea.....	May 6, 1871	May 23, 1871
458	Galt, William M., Washington, D. C. Flour.....	Aug. 4, 1871	Oct. 3, 1871
459	Garlick, Charles, Montreal, Canada. Condition-powders.....	Sept. 8, 1871	Oct. 3, 1871
162	Georger, Charles E., New York, N. Y. Preparation for the hair...	Jan. 14, 1871	Feb. 14, 1871
593	Gerber, C. & Co., Toledo, Ohio. Axes.....	Nov. 24, 1871	Dec. 19, 1871
199	Gibbs, William P., Saint Charles City, Mo.; Isaac N. Ross, Mid- dlesex County, N. J.; and William B. Field, Saint Louis, Mo. Woolen goods.....	Feb. 18, 1871	Mar. 21, 1871
531	Gill & Lootz, Boston, Mass. Gin.....	Oct. 26, 1871	Nov. 14, 1871
321	Gillett, Allen H., Syracuse, N. Y. Whisky.....	Jan. 26, 1871	June 13, 1871
607	Goodwin & Co., New York, N. Y. Tobacco.....	Dec. 5, 1871	Dec. 26, 1871
575	Graves, Chester H., Boston, Mass. Alcohol.....	Nov. 20, 1871	Dec. 12, 1871
524	Great New York Tea Company, Baltimore, Md. Tea and coffee....	Oct. 17, 1871	Nov. 7, 1871
188	Hacker, Francis, and Frederick Richardson, assignors to Revers- ible Boot-Heel Company, Providence, R. I. Boot heels.....	Feb. 24, 1871	Mar. 14, 1871
566	Haines, John P., Irvington, N. Y. Oil-cans.....	April 3, 1871	Dec. 5, 1871
532	Haley, John J., San Francisco, Cal. Medicines.....	Oct. 21, 1871	Nov. 14, 1871
123	Hall & Speer, Pittsburgh, Pa. Agricultural implements.....	Dec. 17, 1870	Jan. 3, 1871
408	Hall, John L. S., Wheeling, W. Va. Medicines.....	July 3, 1871	Aug. 1, 1871
478	Hand, Thomas J., New York, N. Y. Fertilizer.....	Aug. 18, 1871	Oct. 17, 1871
497	Hardee, Philip M., Philmont, N. Y. Knit goods and fabrics.....	Oct. 2, 1871	Oct. 24, 1871
390	Harkness, Charles, Cincinnati, Ohio. Candles.....	June 26, 1871	July 25, 1871
439	Harmon, Merrick & Co., Cleveland, Ohio. Engine-oil.....	June 19, 1871	Sept. 12, 1871
417	Harris, J. N. & Co., Cincinnati, Ohio. Medicine.....	July 25, 1871	Aug. 8, 1871
225	Harris Manufacturing Company, Coventry, R. I. Cotton goods....	Mar. 29, 1871	April 18, 1871
479	Same.....Fine cotton shirtings.....	Aug. 11, 1871	Oct. 17, 1871
428	Harris Manufacturing Company, Janesville, Wis. Harvesters....	July 27, 1871	Aug. 22, 1871
329	Harris, Richmond & Shafer, New York, N. Y. Clothiers' and tail- ors' trimmings.....	May 27, 1871	June 20, 1871
330	Same.....Clothiers' and tailors' trimmings.....	May 27, 1871	June 20, 1871
331	Same.....same.....	May 27, 1871	June 20, 1871
460	Hart, William H., jr., & Brother, Philadelphia, Pa. Shields for neck-ties, cravats, &c.....	Aug. 23, 1871	Oct. 3, 1871
218	Hartman, Dr. S. B. & Co., Lancaster, Pa. Bitters.....	Mar. 13, 1871	April 11, 1871
346	Hartwell, Harrison Jerome, Philadelphia, Pa. Medicine.....	May 22, 1871	June 20, 1871
208	Hay, Henry H., Portland, Me. Medicine.....	Jan. 3, 1871	Mar. 28, 1871
309	Hedges, William N., Springfield, Ohio. Baking-powder.....	Nov. 7, 1870	June 6, 1871
440	Heller & Brightly, Philadelphia, Pa. Mathematical instruments...	Aug. 17, 1871	Sept. 12, 1871
209	Henarie, Daniel V. B., San Francisco, Cal. Whisky.....	Mar. 8, 1871	Mar. 28, 1871
272	Hernsheim, Simon, New Orleans, La. Leaf-tobacco.....	April 25, 1871	May 23, 1871
567	Hill, James R. & Co., Concord, N. H. Harness.....	Nov. 14, 1871	Dec. 5, 1871
178	Hillebrand & Wolf, Philadelphia, Pa. Locks and hardware.....	Feb. 11, 1871	Feb. 28, 1871
238	Hodgson, Thomas S. & Co., McKeesport, Pa. Medicine.....	Mar. 23, 1871	May 2, 1871
135	Holbrook & Merrill, Boston, Mass. Cosmetics, pomades, and per- fumeries.....	Dec. 19, 1870	Jan. 17, 1871
469	Holden, Tascott & Co., Chicago, Ill. Paint.....	Sept. 14, 1871	Oct. 3, 1871
470	Same.....same.....	Sept. 14, 1871	Oct. 3, 1871
471	Same.....same.....	Sept. 14, 1871	Oct. 3, 1871
598	Holloway & Co., New York, N. Y. Medicine.....	Dec. 1, 1871	Dec. 19, 1871
599	Same.....same.....	Dec. 1, 1871	Dec. 19, 1871
480	Holmes, Thomas J., Boston, Mass. Atomizers for perfuming, &c...	Aug. 24, 1871	Oct. 17, 1871
568	Home Woolen Company, Hartford, Conn. Shawls, cloakings, beavers, &c.....	Nov. 14, 1871	Dec. 5, 1871
533	Hooper, Quincy A., Attleborough, Mass. Pineapple beer.....	Oct. 2, 1871	Nov. 14, 1871
534	Hopkins, Andrew J., Providence, R. I. Medicine.....	Oct. 23, 1871	Nov. 14, 1871
535	Horner, Joshua, jr., Baltimore, Md. Fertilizers.....	Oct. 20, 1871	Nov. 14, 1871
594	Same.....same.....	Nov. 23, 1871	Dec. 19, 1871
518	Horton, E. & Son, Windsor Locks, Conn. Lathe-chucks.....	Oct. 14, 1871	Nov. 7, 1871
223	Hottetter & Smith, Pittsburgh, Pa. Medicine.....	April 4, 1871	April 18, 1871
219	Hudson, Thomas S., East Cambridge, Mass. Stationers' hardware..	Mar. 17, 1871	April 11, 1871

List of trade-marks registered during the year 1871—Continued.

No.	Name, residence, and title.	Date of filing.	Date of registration.
332	Hughes, John M., Brooklyn, N. Y. Insect-powder.....	May 27, 1871	June 20, 1871
481	Husson, Edmond, New York, N. Y. Ladies' collars, cuffs, &c.....	Sept. 7, 1871	Oct. 17, 1871
273	Hutchinson & Thomas, Baltimore, Md. Shirts.....	May 4, 1871	May 23, 1871
347	Hydraulic Cement Company, Akron, N. Y. Hydraulic cement.....	April 27, 1871	June 20, 1871
576	Ingraham, E. & Co., Bristol, Conn. Clocks.....	Nov. 18, 1871	Dec. 12, 1871
577	Same..... same.....	Nov. 18, 1871	Dec. 12, 1871
578	Same..... same.....	Nov. 18, 1871	Dec. 12, 1871
579	Same..... same.....	Nov. 18, 1871	Dec. 12, 1871
428	Ives, Beecher & Co., New York, N. Y. Brandy.....	July 31, 1871	Aug. 22, 1871
547	Same..... same.....	Oct. 31, 1871	Nov. 21, 1871
548	Same..... same.....	Oct. 31, 1871	Nov. 21, 1871
549	Same..... same.....	Oct. 31, 1871	Nov. 21, 1871
378	Jackson & Wiley, Detroit, Mich. Composition car and other bearings.....	April 3, 1871	July 18, 1871
538	Jackson Company, Nashua, N. H. Cotton sheetings, &c.....	Oct. 21, 1871	Nov. 14, 1871
310	Jenkins, Thomas E., Louisville, Ky. Medicine.....	May 11, 1871	June 6, 1871
163	Jennings, Abraham G., New York, N. Y. Lace goods.....	Jan. 25, 1871	Feb. 14, 1871
311	Same..... Nets and lace.....	April 3, 1871	June 6, 1871
312	Same..... same.....	April 3, 1871	June 6, 1871
313	Same..... same.....	April 3, 1871	June 6, 1871
391	Same..... Nets and lace goods.....	June 24, 1871	July 25, 1871
392	Same..... same.....	June 24, 1871	July 25, 1871
393	Same..... same.....	June 24, 1871	July 25, 1871
394	Same..... same.....	June 24, 1871	July 25, 1871
395	Same..... same.....	June 24, 1871	July 25, 1871
164	Jervey, William E., New Orleans, La. Illuminating-oil or burning-fluid.....	Jan. 27, 1871	Feb. 14, 1871
228	Johnson, Charles E., Philadelphia, Pa. Printers' ink.....	April 7, 1871	April 25, 1871
379	Johnson, Oliver, & Co., Providence, R. I. Paint.....	Nov. 12, 1870	July 18, 1871
149	Jones, Edward Francis, Farmington, N. H. Shoes, brogans, and boots.....	Jan. 18, 1871	Feb. 7, 1871
200	Jones, Edward F., Binghamton, N. Y. Weighing-scales.....	Feb. 4, 1871	Mar. 21, 1871
498	Joslin, William E., Nashua, N. H. Shirts.....	Sept. 27, 1871	Oct. 24, 1871
536	Kavanagh & Decker, New York, N. Y. Billiard-tables.....	Sept. 30, 1871	Nov. 14, 1871
239	Keeler, Ezra W., Yardville, N. J. Twine, warp, yarn, &c.....	April 8, 1871	May 2, 1871
396	Kellogg, John Q., Brooklyn, N. Y. Medicine.....	April 7, 1871	July 25, 1871
380	Kennedy, Simon Henry, Johnstown, N. Y. Medicine.....	July 1, 1871	July 18, 1871
274	Kimball, W. S. & Co., Rochester, N. Y. Tobacco.....	May 6, 1871	May 23, 1871
220	Knight, B. B. & R., Providence, R. I. Cotton goods.....	Mar. 23, 1871	April 11, 1871
418	Same..... Cotton shirts.....	Mar. 23, 1871	Aug. 8, 1871
580	Knoepfel, William H., New York, N. Y. Bitters.....	Sept. 23, 1871	Dec. 12, 1871
482	Knox, James, jr., Kilbirnie, Scotland. Linen thread.....	Aug. 3, 1871	Oct. 17, 1871
537	Kohler, John T., New York, N. Y. Bread.....	Oct. 10, 1871	Nov. 14, 1871
409	Kwong On-Cheong, San Francisco, Cal. Tea.....	July 17, 1871	Aug. 1, 1871
419	Landsberg, Silvius, New York, N. Y. Jewelry and watches.....	July 24, 1871	Aug. 8, 1871
165	Lawrence, Daniel & Sons, Boston, Mass. Medford rum.....	Jan. 11, 1871	Feb. 14, 1871
569	Lear, Peter, Boston, Mass. Wearing-apparel for protecting lungs, &c.....	Oct. 19, 1871	Dec. 5, 1871
185	Leberman & Co., Philadelphia, Pa. Soap.....	Jan. 20, 1871	Mar. 7, 1871
189	Same..... same.....	Feb. 24, 1871	Mar. 14, 1871
333	Lee & Brother, Ridgewood, N. Y. Medicine.....	Jan. 14, 1871	June 20, 1871
	Lemon, William, and Anderson Carson. (See Carson & Lemon.)		
483	Lester, Felix E., Troy, N. Y. Beer.....	Sept. 21, 1871	Oct. 17, 1871
179	Levi, Lewis, New York, N. Y. Shirts.....	Jan. 21, 1871	Feb. 28, 1871
275	Lewis, A. K., & Co., Covington, Ky. Whisky and bitters.....	Mar. 27, 1871	May 23, 1871
146	Lincoln, George S. & Co., Hartford, Conn. Molasses-gate.....	Jan. 13, 1871	Jan. 31, 1871
363	Loring, John P., Charlestown, Mass. Hosiery, trimmings, and gentlemen's furnishing goods.....	May 3, 1871	July 4, 1871
508	Lovett, Jane, Allegheny City, Pa. Nipple-salve.....	Sept. 5, 1871	Oct. 31, 1871
240	Low, C. Adolphe & Co., San Francisco, Cal. Tea.....	April 17, 1871	May 2, 1871
132	Lowell Manufacturing Company, Lowell, Mass. Carpet.....	Dec. 12, 1870	Jan. 10, 1871
334	Lynch, John Augustus, and Edwin B. Buckingham, Boston, Mass. Governor for steam-engines.....	Feb. 9, 1871	June 20, 1871
509	Mansfield, George Henry, Canton, Mass. Fish-lines.....	Aug. 3, 1871	Oct. 31, 1871
210	Martin, E. & Co., San Francisco, Cal. Whisky.....	Mar. 8, 1871	Mar. 28, 1871
364	Marx & Rawolle, New York, N. Y. Glycerine-soaps.....	June 17, 1871	July 4, 1871
276	Mason Manufacturing Company, New York, N. Y. Fruit-jars.....	April 27, 1871	May 23, 1871
450	Massoneau, Charles W., Red Hook, N. Y. Strengthening-plasters.....	Sept. 2, 1871	Sept. 26, 1871
499	Matthews, David P., Winthrop, Mass. Medical compound for cattle.....	Sept. 28, 1871	Oct. 24, 1871
556	Mauger, Victor E., New York, N. Y. Playing-cards.....	Nov. 4, 1871	Nov. 28, 1871
430	Maw, S., Son & Thompson, London, England. Surgeons' instruments, &c.....	Feb. 14, 1871	Aug. 22, 1871
381	McBeth, Bentel & Margedant, Hamilton, Ohio. Wood-working.....	June 10, 1871	July 18, 1871
171	McComb, James Jennings, Liverpool, England. Cotton-bale bands and ties.....	Feb. 1, 1871	Feb. 20, 1871
314	Same..... Cotton-bale ties.....	Feb. 1, 1871	June 6, 1871
250	McComber, Joel, Chicago, Ill. Boot and shoe lasts.....	Jan. 4, 1871	May 9, 1871
510	McConnell, Porter & Co., Sciotoville, Ohio. Fire-brick, tile, &c.....	June 24, 1871	Oct. 31, 1871
451	McKee, John, New Orleans, La. Corn-salve.....	Sept. 5, 1871	Sept. 26, 1871
484	McKeon, Thomas, New York, N. Y. Paint.....	Aug. 12, 1871	Oct. 17, 1871

List of trade-marks registered during the year 1871—Continued.

No.	Name, residence, and title.	Date of filing.	Date of registration.
136	McLean, Samuel & Co., New York, N. Y. Worsted goods	Dec. 28, 1870	Jan. 17, 1871
335	Meneely, E. A. and G. R., West Troy, N. Y. Bells	Jan. 13, 1871	June 20, 1871
557	Merrill, Rufus S., William B., and Joshua, Boston, Mass. Hydro-carbon-oil		
558	Messinger, Charles R., Toledo, Ohio. Smoking-tobacco	Nov. 7, 1871	Nov. 28, 1871
559	Same	Nov. 4, 1871	Nov. 28, 1871
570	Same	Nov. 4, 1871	Nov. 28, 1871
190	Millard, E. R., Waltham, Mass. Dressing compound	Nov. 4, 1871	Dec. 5, 1871
258	Miller, Albert W. W., New York, N. Y. Gentlemen's furnishing goods	Feb. 2, 1871	Mar. 14, 1871
191	Mills, Johnson & Co., Cincinnati, Ohio. Whisky	April 22, 1871	May 16, 1871
192	Same	Feb. 23, 1871	Mar. 14, 1871
193	Same	Feb. 23, 1871	Mar. 14, 1871
194	Same	Feb. 27, 1871	Mar. 14, 1871
201	Same	Feb. 27, 1871	Mar. 14, 1871
201	Same	Mar. 3, 1871	Mar. 21, 1871
215	Same	Mar. 8, 1871	April 4, 1871
241	Same	April 8, 1871	May 2, 1871
461	Same	Sept. 8, 1871	Oct. 3, 1871
462	Same	Sept. 8, 1871	Oct. 3, 1871
463	Same	Sept. 8, 1871	Oct. 3, 1871
354	Mitchell, Samuel J., Saint Louis, Mo. Lightning-rods	Sept. 8, 1871	Oct. 3, 1871
251	Moline Plow Company, Moline, Ill. Plows and cultivators	June 7, 1871	June 27, 1871
150	Moller, William & Sons, New York, N. Y. Sugar, sirup, and molasses	April 17, 1871	May 9, 1871
195	Same	Dec. 17, 1870	Feb. 7, 1871
348	Same	Jan. 14, 1871	Mar. 14, 1871
349	Same	Dec. 30, 1870	June 20, 1871
382	Monies, William N., and Lewis Pughe, Scranton, Pa. Crackers	Dec. 30, 1870	June 20, 1871
355	Monk, J. A. & Sons, Saint Louis, Mo. Whisky	June 6, 1871	July 18, 1871
410	Same	May 19, 1871	June 27, 1871
411	Same	July 15, 1871	Aug. 1, 1871
411	Same	July 18, 1871	Aug. 1, 1871
322	Moore, Jesse & Co., Louisville, Ky. Whisky	May 20, 1871	June 13, 1871
412	Moore, Thomas E., Shawhan, Ky. Whisky	July 14, 1871	Aug. 1, 1871
151	Morehouse, Charles L., Cleveland, Ohio. Machinery-oil	Jan. 6, 1871	Feb. 7, 1871
152	Same	Jan. 6, 1871	Feb. 7, 1871
153	Same	Jan. 6, 1871	Feb. 7, 1871
154	Same	Jan. 6, 1871	Feb. 7, 1871
323	Morgan's, Enoch, Sons, New York, N. Y. Polishing-compound	Jan. 6, 1871	Feb. 7, 1871
324	Same	May 22, 1871	June 13, 1871
202	Morison, Son & Hutchinson, New York, N. Y. Shirts	May 22, 1871	June 13, 1871
365	Myers, Lawrence & Co., New York, N. Y. Gin	Mar. 7, 1871	Mar. 21, 1871
366	Same	June 9, 1871	July 4, 1871
229	Nason, James H., Boston, Mass. Pigments	June 9, 1871	July 4, 1871
519	National Wood-Manufacturing Company, New York, N. Y. Wood carpeting, wainscoting, &c.	April 6, 1871	April 25, 1871
127	National Yeast Company, Seneca Falls, N. Y. Yeast	Sept. 21, 1871	Nov. 7, 1871
124	Nellis, Aaron J., Pittsburgh, Pa. Hay-elevators and other agricultural implements	Dec. 10, 1870	Jan. 3, 1871
356	Northwestern Fire-Extinguisher Company, Chicago, Ill. Fire-extinguisher	Dec. 19, 1870	Jan. 3, 1871
277	Northwestern Horse-Nail Company, Chicago, Ill. Horse-nails	Jan. 19, 1871	June 27, 1871
203	Oppelt, Edwin J., Baltimore, Md. Tobacco	Dec. 17, 1870	May 23, 1871
211	Orth, Adam, Milwaukee, Wis. Bitters	Mar. 8, 1871	Mar. 21, 1871
441	Page, George F. and Charles T., Franklin, N. H. Leather	Mar. 10, 1871	Mar. 28, 1871
500	Palmer, Kennedy, Richmond, Va. Advertising-medium	Aug. 17, 1871	Sept. 12, 1871
212	Palmer, O. M., New York, N. Y. Salve	Sept. 25, 1871	Oct. 24, 1871
464	Patent Elastic Felt Company, New York, N. Y. Prepared cotton for mattresses, cushions, &c.	Mar. 11, 1871	Mar. 28, 1871
259	Peake, William I., New York, N. Y. Alpaca	Feb. 27, 1871	Oct. 3, 1871
260	Same	April 21, 1871	May 16, 1871
261	Same	April 21, 1871	May 16, 1871
350	Pearl, Adolph, New York, N. Y. Tobacco	April 21, 1871	May 16, 1871
367	Perrin, Marie Eulalie, Montreal, Canada. Medicine	May 22, 1871	June 20, 1871
278	Perry & Co., Albany, N. Y. Cooking-stoves	June 17, 1871	July 4, 1871
325	Phalon & Son, New York, N. Y. Perfume	Jan. 18, 1871	May 23, 1871
242	Phelan & Collender, New York, N. Y. Billiard-tables	Feb. 4, 1871	June 13, 1871
357	Phillips, E. R. & Co., Freetown, Mass. Medicine	Mar. 20, 1871	May 2, 1871
298	Pike, Amasa, Somerville, Mass. Garters	Mar. 9, 1871	June 27, 1871
279	Pilkington, Edwin T., Richmond, Va. Smoking and chewing tobacco	May 12, 1871	May 30, 1871
252	Place, William H. & Co., Providence, R. I. Dyeing and coloring compounds	April 28, 1871	May 23, 1871
581	Pohalski, P. & Co., New York, N. Y. Cigars	Mar. 18, 1871	May 9, 1871
196	Pomeroy, L., & Sons, Pittsfield, Mass. Gray cloth	Nov. 20, 1871	Dec. 12, 1871
	Prentice, James H., et al. (See Baldwin, Prentice & Waller.)	Feb. 18, 1871	Mar. 14, 1871
	Pughe, Lewis, and William N. Monies. (See Monies & Pughe.)		
422	Putnam, Silas S., assignor to S. S. Putnam & Co., Boston, Mass. Curtain-fixtures		
	Rammelsberg & Wendt. (See Wendt & Rammelsberg.)	July 26, 1871	Aug. 15, 1871

List of trade-marks registered during the year 1871—Continued.

No.	Name, residence, and title.	Date of filing.	Date of registration.
125	Rand, William J., jr., Brooklyn, N. Y. Sea-moss cough-candy, troches, and sirup	Dec. 14, 1870	Jan. 3, 1871
431	Rappleve & Knight, Philadelphia, Pa. Soaps	July 22, 1871	Aug. 22, 1871
336	Redington & Co., Syracuse, N. Y. Cabinet-organs	May 13, 1871	June 20, 1871
520	Redway & Burton, Cincinnati, Ohio. Stoves	Aug. 15, 1871	Nov. 7, 1871
552	Remington Empire Sewing-Machine Company, Ilion, N. Y. Sewing-machines	Oct. 30, 1871	Nov. 21, 1871
280	Reno, Griffin, Titusville, Pa. Medicine	April 24, 1871	May 23, 1871
	Reversible Boot-Heel Company. (See Hacker & Richardson, assignors.)		
221	Reynolds, Benjamin K., Boyd's Station, Ky. Whisky	Mar. 25, 1871	April 11, 1871
413	Rice, Matthias Joslyn, Boston, Mass. Picture-frames, brackets, &c.	June 23, 1871	Aug. 1, 1871
243	Rich & Burlingham, New York, N. Y. Wood pumps	April 8, 1871	May 2, 1871
137	Richards, I. D. & Sons, Boston, Mass. Gin	Oct. 17, 1870	Jan. 17, 1871
485	Same	Aug. 23, 1871	Oct. 17, 1871
560	Same	Oct. 30, 1871	Nov. 23, 1871
204	Richards, Robert G., New York, N. Y. Burning-fluid	Feb. 25, 1871	Mar. 21, 1871
501	Richardson, Boynton & Co., New York, N. Y. Fire-place heaters	Aug. 31, 1871	Oct. 24, 1871
486	Richardson, Frank L., Lowell, Mass. Medicine	Aug. 10, 1871	Oct. 17, 1871
	Richardson, Frederick, and Francis Hacker. (See Hacker & Richardson.)		
136	Ridenour, Coblentz & Co., Springfield, Ohio. Medicine	Nov. 5, 1870	Mar. 7, 1871
315	Robbins, Horace T., Hyde Park, Mass. Umbrellas	May 15, 1871	June 6, 1871
262	Roberts, Robert J., New York, N. Y. Scissors	Nov. 26, 1870	May 16, 1871
299	Same..... Razors	Nov. 26, 1870	May 30, 1871
300	Same..... same	Nov. 26, 1870	May 30, 1871
358	Same..... Needles	Nov. 26, 1870	June 27, 1871
368	Same..... Razor-steel	Nov. 26, 1870	July 4, 1871
281	Rock River Paper Company, Beloit, Wis. Paper	Dec. 30, 1870	May 23, 1871
337	Rockwood Photo-Engraving Company, New York, N. Y. Photo-engraving	May 23, 1871	June 20, 1871
338	Same..... Photo-engraving	May 23, 1871	June 20, 1871
595	Rogers & Burchfield, Pittsburgh, Pa. Sheet-iron	Nov. 23, 1871	Dec. 19, 1871
282	Rose, Buckley A., Urbana, Ohio. Burning-fluid	Nov. 26, 1870	May 23, 1871
539	Ross, Charles H. & Co., Baltimore, Md. Whisky	Jan. 26, 1871	June 20, 1871
340	Same	Jan. 26, 1871	June 20, 1871
550	Same	Oct. 27, 1871	Nov. 21, 1871
	Ross, Reuben G., et al. (See Gibbs, Ross & Field.)		
283	Rowe, Graves & Co., Chicago, Ill. Vinegar and cider	April 21, 1871	May 23, 1871
582	Rubber-Paint Company, Cleveland, Ohio. Rubber-paint	Sept. 30, 1871	Dec. 12, 1871
420	San Francisco Pioneer Woolen Factory, San Francisco, Cal. Woolen fabrics	July 24, 1871	Aug. 8, 1871
213	Saratoga Seltzer Spring Company, Saratoga Springs, N. Y. Mineral water	Mar. 10, 1871	Mar. 23, 1871
263	Schember, John, Bangor, Me. Liniment	Mar. 25, 1871	May 16, 1871
316	Schmidlapp Brothers, Memphis, Tenn. Cigars	April 26, 1871	June 6, 1871
317	Schroeder, Herman, Quincy, Ill. Cosmetic	Mar. 29, 1871	June 6, 1871
502	Schuekardt, Frederick, New York, N. Y. Gin	Sept. 30, 1871	Oct. 24, 1871
503	Same	Sept. 30, 1871	Oct. 24, 1871
452	Scott, John, New York, N. Y. Medicines	Aug. 23, 1871	Sept. 26, 1871
287	Scranton Stove and Manufacturing Company, Scranton, Pa. Stoves	Jan. 4, 1871	May 23, 1871
342	Same..... Ranges	May 24, 1871	June 20, 1871
	Seaman, Robert, and Henry W. Shepard. (See Shepard & Seaman.)		
437	Seaman, Robert F., New York, N. Y. Paints	Aug. 12, 1871	Aug. 29, 1871
144	Selby, James & Co., Peoria, Ill. Corn-planter	Jan. 5, 1871	Jan. 24, 1871
301	Seltzer & Miller, Philadelphia, Pa. Whisky	May 3, 1871	May 30, 1871
465	Shannon, Albert F., Quincy, Ill. Medicines	June 6, 1871	Oct. 3, 1871
423	Sharp, E. S., Salem, N. J. Medicines	July 23, 1871	Aug. 15, 1871
133	Sharp, Joel, Salem, Ohio. Steam-engine	Dec. 19, 1870	Jan. 10, 1871
343	Shepard, Henry W., and Robert Seaman, New York, N. Y. Sheet-metal wares and trimmings	May 16, 1871	June 20, 1871
344	Sheriff, John Langdon, Dedham, Mass. Palm-leaf brushes	Mar. 1, 1871	June 20, 1871
134	Silbermann, Heinemann & Co., New York, N. Y. Fringes, ribbons, and trimmings of silk	Dec. 13, 1870	Jan. 10, 1871
172	Same..... Cords, fringes, ribbons, &c.	Dec. 13, 1870	Feb. 21, 1871
205	Silicate Slate Company, New York, N. Y. Slates, &c.	Feb. 23, 1871	Mar. 21, 1871
487	Singer, Nimick & Co., Pittsburgh, Pa. Cast steel	Aug. 12, 1871	Oct. 17, 1871
245	Smith & Harris, Philadelphia, Pa. Fertilizer	April 3, 1871	May 2, 1871
244	Smith, Crosby & Co., New York, N. Y. Cigars	April 8, 1871	May 2, 1871
561	Smith, Elisha T., Hartford, Conn. Yeast	Nov. 4, 1871	Nov. 23, 1871
432	Smith, Hiram, Hillsdale, N. Y. Pump	Aug. 5, 1871	Aug. 22, 1871
521	Smith, H. D. & Co., Plantsville, Conn. Carriage-makers' hardware	Oct. 18, 1871	Nov. 7, 1871
230	Smith, John C. & Son, Baltimore, Md. Cigars	Mar. 23, 1871	April 25, 1871
173	Smith, J. Lee & Co., New York, N. Y. Paints	Dec. 30, 1870	Feb. 21, 1871
284	Smith, Samuel, New York, N. Y. Frying-pan	April 15, 1871	May 23, 1871
551	Smith, Thomas L., Boston, Mass. Gin	Oct. 30, 1871	Nov. 21, 1871
522	Solms, Sidney J., Philadelphia, Pa. Woven fabrics	Oct. 16, 1871	Nov. 7, 1871
133	Spang, Jacob D., Dayton, Ohio. Illuminating-oil	Dec. 27, 1870	Jan. 17, 1871
	Speer & Hall. (See Hall & Speer.)		
326	Spencer, Albert H., Providence, R. I. Clothes-wringers	May 23, 1871	June 13, 1871
139	Spies, Francis, New York, N. Y. Kerosene and spirits of turpentine	Nov. 30, 1870	Jan. 17, 1871

List of trade-marks registered during the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date of filing.	Date of registration.
488	Stanley, David A., New York, N. Y. Whisky.....	Sept. 26, 1871	Oct. 17, 1871
147	Steel, Edward T., & Co., Philadelphia, Pa. Cloth or men's wear....	Jan. 9, 1871	Jan. 31, 1871
397	Steffan, F., & Co., Philadelphia, Pa. Shawls.....	June 26, 1871	July 25, 1871
	Stell, John J., and Walter S. Wells. (<i>See Wells & Stell</i>). (Two cases.)		
253	Sternberg, Leopold and Samuel, Philadelphia, Pa. Shirts, drawers, &c.....	April 20, 1871	May 9, 1871
504	Strain, John G., Delaware, Ohio. Split-bottom chairs.....	Sept. 19, 1871	Oct. 24, 1871
126	Straiton, Schmitt & Storm, New York, N. Y. Cigars.....	Dec. 20, 1870	Jan. 3, 1871
246	Strasburger, Fritz & Pfeiffer, New York, N. Y. Toys and fancy goods.....	April 13, 1871	May 2, 1871
383	Suire, F. E., & Co., Cincinnati, Ohio. Chemical, pharmaceutical, and galenic preparations.....	June 24, 1871	July 18, 1871
571	Sweet, Barnes & Co., Syracuse, N. Y. Cutters for harvesters, &c....	June 21, 1871	Dec. 5, 1871
166	Taylor, Pemberton & Co., Atlanta, Ga. Medical compounds.....	Jan. 25, 1871	Feb. 14, 1871
572	Tenney, William H., & Sons, Georgetown, D. C. Flour.....	Nov. 9, 1871	Dec. 5, 1871
	Thomas, James, jr., and Thomas C. Williams. (<i>See Williams & Thomas.</i>)		
539	Thompson, Langdon & Co., New York, N. Y. Corsets, skirts, &c....	Oct. 25, 1871	Nov. 14, 1871
540	Same.....Skirts.....	Oct. 25, 1871	Nov. 14, 1871
541	Same.....Corsets.....	Oct. 25, 1871	Nov. 14, 1871
542	Same.....same.....	Oct. 25, 1871	Nov. 14, 1871
543	Same.....Skirts and corsets.....	Oct. 25, 1871	Nov. 14, 1871
453	Thompson, Steele & Price Manufacturing Company, Chicago, Ill. Medicines.....	Mar. 13, 1871	Sept. 26, 1871
247	Thurston, George B., Lynn, Mass. Medicinal preparation.....	April 12, 1871	May 2, 1871
421	Tilden & Co., New Lebanon, N. Y. Medicine.....	May 23, 1871	Aug. 8, 1871
140	Townsend, Elmer, Boston, Mass. Boots and shoes.....	Dec. 27, 1870	Jan. 17, 1871
264	Townsend, Henry Elmer, Boston, Mass. Boots and shoes.....	April 24, 1871	May 16, 1871
265	Same.....same.....	April 24, 1871	May 16, 1871
248	Tucker, J. Augustus, Boston, Mass. Fertilizer.....	Jan. 9, 1871	May 2, 1871
415	Turner, John P., Birmingham, England. Jewelry.....	Dec. 19, 1870	Aug. 1, 1871
141	Union Akron Cement Company, Buffalo, N. Y. Akron cement.....	Aug. 15, 1870	Jan. 17, 1871
187	Union Manufacturing Company, Springfield, Mass. Paper.....	Jan. 12, 1871	Mar. 7, 1871
433	Utica Cement Company, Chicago, Ill. Hydraulic cement.....	Aug. 8, 1871	Aug. 22, 1871
583	Ventilating Water-Proof Shoe Company, Boston, Mass. Boots and shoes.....	Nov. 20, 1871	Dec. 12, 1871
584	Same.....Boots and shoes.....	Nov. 20, 1871	Dec. 12, 1871
180	Vidvard & Sheehan, Utica, N. Y. Whisky.....	Jan. 24, 1871	Feb. 28, 1871
226	Same.....same.....	Mar. 28, 1871	April 18, 1871
438	Viele, Platt B., Rochester, N. Y. Laundry-bluing.....	Aug. 11, 1871	Aug. 29, 1871
288	Walker, Joseph H., Worcester, Mass. Boots and shoes.....	May 1, 1871	May 23, 1871
289	Walker, Oakley & Co., Chicago, Ill. Leather.....	May 1, 1871	May 23, 1871
	Waller, John R., <i>et al.</i> (<i>See Baldwin, Prentice & Waller.</i>)		
489	Walsh, Brooks & Kellogg, Cincinnati, Ohio. Whisky.....	Sept. 26, 1871	Oct. 17, 1871
490	Same.....same.....	Sept. 26, 1871	Oct. 17, 1871
491	Same.....same.....	Sept. 26, 1871	Oct. 17, 1871
492	Same.....same.....	Sept. 26, 1871	Oct. 17, 1871
493	Walter & Fielding, New York, N. Y. Paints.....	Aug. 10, 1871	Oct. 17, 1871
494	Same.....same.....	Aug. 10, 1871	Oct. 17, 1871
434	Walter & Shaeffer, San Francisco, Cal. Pipifax bitters.....	July 12, 1871	Aug. 22, 1871
319	Walton, Whann & Co., Wilmington, Del. Fertilizer.....	May 15, 1871	June 6, 1871
596	Ware, Marshall & Co., Boston, Mass. Gloves.....	Nov. 24, 1871	Dec. 19, 1871
145	Warfield & Co., Rochester, N. Y. Lubricating oil.....	Dec. 21, 1870	Jan. 24, 1871
445	Warren, Edwin A., Worcester, Mass. Hair-restorer.....	June 17, 1871	Sept. 19, 1871
544	Waters, C. and W. A., Boston, Mass. Gin.....	Oct. 26, 1871	Nov. 14, 1871
345	Wayne, Edward S., Cincinnati, Ohio. Medicines.....	Sept. 21, 1870	June 20, 1871
597	Weber, Bernhard, New York, N. Y. Gloves.....	Nov. 25, 1871	Dec. 19, 1871
142	Webster, H., & Co., San Francisco, Cal. Whisky.....	Dec. 27, 1870	Jan. 17, 1871
525	Weeks & Dupee, Boston, Mass. Chemical for dyeing.....	Oct. 18, 1871	Nov. 7, 1871
167	Wells, Walter S., and John J. Stell, New York, N. Y. Medical preparation.....	Jan. 21, 1871	Feb. 14, 1871
168	Same.....Medical preparation.....	Jan. 21, 1871	Feb. 14, 1871
585	Wendt & Rammelsberg, New York, N. Y. Cement.....	Nov. 18, 1871	Dec. 12, 1871
206	Werk, M., & Son, Cincinnati, Ohio. Wine.....	Feb. 21, 1871	Mar. 21, 1871
181	Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Sewing-machine.....	Feb. 7, 1871	Feb. 28, 1871
320	Whitelaw, Francis M., Cincinnati, Ohio. Candy.....	Mar. 17, 1871	June 6, 1871
359	Whiting, George A., Boston, Mass. Ladies' undergarments, ruffles, &c.....	June 9, 1871	June 27, 1871
399	Whitney, James H., Paterson, N. J. Sewing-machines.....	July 10, 1871	July 25, 1871
511	Wilder, James Davis, Chicago, Ill. Liquid slating, &c.....	Oct. 7, 1871	Oct. 31, 1871
305	Willetts, Charles E., Chicago, Ill. Soap.....	Mar. 11, 1871	May 30, 1871
214	Williams, Blanchard & Co., San Francisco, Cal. Tea.....	Mar. 10, 1871	Mar. 28, 1871
400	Williams, Thomas C., and James Thomas, jr., Richmond, Va. Tobacco.....	June 23, 1871	July 25, 1871
401	Williamson, Edward J., Saint Louis, Mo. Beverages.....	June 6, 1871	July 25, 1871
402	Winfree & Loyd, Lynchburgh, Va. Tobacco.....	July 6, 1871	July 25, 1871
466	Witherspoon, William S. and Thomas S., and Thomas Werner, Fairview, W. Va. Polish for metal-ware.....	Aug. 19, 1871	Oct. 3, 1871
505	Wood, Alan, & Co., Philadelphia, Pa. Sheet or plate iron.....	Aug. 11, 1871	Oct. 24, 1871
564	Same.....Sheet and plate iron.....	Aug. 11, 1871	Nov. 28, 1871

List of trade-marks registered during the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date of filing.	Date of registration.
435	Woodbury, Booth & Co., Rochester, N. Y. Working barrels or pumps for petroleum wells	May 26, 1871	Aug. 22, 1871
369	Yates, Wharton & Co., Newark, N. J. Hats	June 14, 1871	July 4, 1871
174	York, George H., & Co., Cambridge, Mass. Medicine	Jan. 13, 1871	Feb. 21, 1871
526	Young, Charles H., & Co., Boston, Mass. Blackings	Oct. 11, 1871	Nov. 7, 1871
	Young, Frank A., and William H. Adams. (<i>See Adams & Young.</i>)		
385	Young, George T., & Co., Plainfield, N. J. Paint	May 6, 1871	July 18, 1871
386	Same	May 6, 1871	July 18, 1871

LIST OF PATENTS EXTENDED DURING THE YEAR 1871.

No.	Name, residence, and invention or discovery.	Date.
16,676	Adams, Calvin, Pittsburgh, Pa. Keeper for right and left hand door-locks.....	Feb. 24, 1857
118,177	Ager, Wilson, Washington, D. C. Machine for cleaning rice.....	Sept. 15, 1857
3,572	Alden, Timothy, deceased, by Henry W. Alden, administrator, New York, N. Y. Type setting and distributing machine. (Reissued July 27, 1869).....	Sept. 15, 1857
16,957	Allen, Samuel S., deceased, by E. D. Buckman and Samuel A. Sisson, executors, Bristol, Pa. Harvester.....	April 7, 1857
9,479	Atkins, Jearum, Mokena, Ill. Rake to grain-harvesters.....	Dec. 21, 1852
1,007	Ball, Ephraim, Canton, Ohio. Mowing-machine. (Reissued Sept. 27, 1859, and again reissued July 17, 1860).....	Dec. 1, 1857
1,008	Same.....Mowing-machine. (Reissued Sept. 27, 1859, and again reissued July 17, 1860).....	Dec. 1, 1857
1,009	Same.....Mowing-machine. (Reissued Sept. 27, 1859, and again reissued July 17, 1860).....	Dec. 1, 1857
1,010	Same.....Mowing-machine. (Reissued Sept. 27, 1859, and again reissued July 17, 1860).....	Dec. 1, 1857
1,011	Same.....Mowing-machine. (Reissued Sept. 27, 1859, and again reissued July 17, 1860).....	Dec. 1, 1857
1,012	Same.....Mowing-machine. (Reissued Sept. 27, 1859, and again reissued July 17, 1860).....	Dec. 1, 1857
18,320	Bigelow, Erastus B., Boston, Mass. Power-loom for weaving wire-cloth.....	Oct. 6, 1857
16,678	Brown, John David, Cincinnati, Ohio. Hinge.....	Feb. 24, 1857
1,998	Burden, Henry, deceased, by James A. and I. Townsend Burden, executors, Troy, N. Y. Machine for making horse-shoes. (Reissued June 13, 1865).....	June 30, 1857
18,232	Burt, George E., Harvard, Mass., and Abram and George F. Wright, Clinton, Mass. Horse-power.....	Sept. 22, 1857
18,184	Butler, John, New York, N. Y. Gas-generator.....	Sept. 15, 1857
17,355	Channing, William F., Providence, R. I., and Moses G. Farmer, Boston, Mass. Electro-magnetic fire-alarm telegraph for cities.....	May 19, 1857
18,038	Chubb, Thomas J., New York, N. Y. Separating ore.....	Aug. 25, 1857
16,719	Clarke, Elizur E., deceased, by Franklin N. Clarke, administrator, New Haven, Conn. Machine for cutting pasteboard for boxes.....	Mar. 3, 1857
16,945	Cochrane, James, New York, N. Y. Flu'd-meter.....	Mar. 31, 1857
18,959	Coggeshall, William, and Bennet B. Warner, Massillon, Ohio. Seeding-machine.....	Dec. 29, 1857
2,510	Collender, Hugh W., New York, N. Y. Billiard-table cushion. (Reissued Aug. 23, 1859, and again reissued March 19, 1867).....	Dec. 8, 1857
18,325	Cook, Arlon M., Chicago, Ill. Corn-sheller.....	Oct. 6, 1857
16,529	Cook, Peter, Tonawanda, N. Y. Machine for cutting veneers.....	Feb. 3, 1857
17,668	Cooley, Anthony, deceased, by Ann M. Cooley, administratrix, Ceresco, Mich. Whiffletree-hook.....	June 30, 1857
17,423	Corliss, George H., Providence, R. I. Steam pumping-apparatus.....	June 2, 1857
16,364	Cramer, James P., Schuylerville, N. Y. Cultivator-teeth.....	Jan. 6, 1857
3,393	Crook, Charles, New Hope, Pa. Harvester. (Reissued May 4, 1858, and again re- issued April 20, 1869).....	May 5, 1857
3,394	Same.....Harvester. (Reissued May 4, 1858, and again reissued April 20, 1869).....	May 5, 1857
17,319	Croome, William, deceased, by Rosalie Croome, executrix, Brooklyn, N. Y. Method of printing in colors.....	May 19, 1857
2,869	Darling, Samuel, Providence, R. I. Manufacture of metallic squares. (Reissued February 18, 1868).....	Oct. 6, 1857
1,940	Davidson, Charles H., deceased, by Herman E. Davidson, administrator, and Herman E. Davidson, for himself, Gloucester, Mass. Enema-syringe. (Reis- sued April 25, 1865).....	Mar. 31, 1857
18,882	Demary, Newcomb, jr., Attica, N. Y. Snow-plow.....	Dec. 15, 1857
18,109	Dodenhoff, Israel, deceased, by Joseph W. Budd, administrator, Midland City, Mich. Raking-apparatus for harvesters.....	Aug. 18, 1857
18,141	Dolph, George C., West Andover, Ohio. Mowing-machine.....	Sept. 8, 1857
4,454	Dunham, Isaac A., North Bridgewater, Mass. Edge-plane for shoemakers. (Re- issued Aug. 22, 1871).....	Sept. 22, 1857
17,560	Eastman, Joseph L., deceased, by Clara A. Eastman, executrix, Boston, Mass. Steam-pressure gauge.....	June 16, 1857
1,300	Eddy, Henry, North Bridgewater, Mass. Crib for horses. (Reissued April 8, 1862).....	Jan. 6, 1857
16,534	Ellis, Seth C., Jersey City, N. J. Machine for cutting tenons on blind-slats.....	Feb. 3, 1857
16,873	Esterly, George, Whitewater, Wis. Harvesting-machine.....	Mar. 24, 1857
445	Fairbanks, Thaddeus, Saint Johnsbury, Vt. Platform-scale. (Reissued March 31, 1857).....	Jan. 13, 1857
889	Fay, Lucian, deceased, by Joshua B. Prouty, administrator, Cincinnati, Ohio. Machine for seaming sheet-metal roofs. (Reissued Jan. 24, 1860).....	July 28, 1857
17,961	Fee, William R., Cincinnati, Ohio. Machine for hulling cotton-seed.....	Aug. 11, 1857
542	Ferry, William M., Grand Haven, Mich. Sawing-mill. (Reissued April 6, 1858).....	July 21, 1857
17,963	Fitts, Benaiah, Worcester, Mass. Arrangement of feed-rollers for planing-ma- chines.....	Aug. 11, 1857
17,854	Floyd, James R., New York, N. Y. Retort-cover.....	July 21, 1857
3,310	Franklin, Albert, Genoa Cross Roads, Ohio. Seeding-machine. (Reissued Feb. 23, 1869).....	Nov. 10, 1857
17,269	French, Evelyn F., New York, N. Y. Corn-husker.....	May 12, 1857

List of patents extended during the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
17,855	Gale, William S., deceased, by Mary I. Kelsey, administratrix, Brooklyn, N. Y. Means of rendering joints steam-tight ..	July 21, 1857
18,945	Gardiner, Samuel, jr., Washington, D. C. Mode of lighting gas by electricity ..	Dec. 22, 1857
573	Gibbs, James E. A., Steele's Tavern, Va. Sewing-machine. (Reissued July 13, 1858) ..	June 2, 1857
16,426	Gill, Ira, Walpole, Mass. Machine for forming hat-bodies ..	Jan. 13, 1857
16,830	Giles, Alonzo M., Boston, Mass. Gas-generator ..	Mar. 17, 1857
2,301	Gould, John C., Oxford, N. J. Nail-plate feeding-machine. (Reissued July 19, 1866) ..	May 12, 1857
18,738	Griffen, John, Phoenixville, Pa. Pile for rolling beams ..	Dec. 1, 1857
18,883	Griggs, George S., deceased, by Solomon A. Bolster, executor, Boston, Mass. Locomotive furnace ..	Dec. 15, 1857
18,966	Same.....Locomotive engine-wheel ..	Dec. 29, 1857
17,430	Hall, John S., Pittsburgh, Pa. Plow ..	June 2, 1857
4,583	Hanley, James, New York, N. Y. Mechanical movement for sewing and other machinery. (Reissued Oct. 10, 1871) ..	Dec. 15, 1857
17,626	Haw, John, Hanover County, Va. Picker sawing-machine. (Improvement added July 26, 1859) ..	July 23, 1857
16,833	Hayden, Isaac, Lawrence, Mass. Machinery for cleaning and separating cotton, wool, fur, and other fibrous materials ..	Mar. 17, 1857
17,929	Hayden, Isaac, Boston, Mass. Bobbin for roving and slubbing ..	Aug. 4, 1857
18,742	Hayden, Isaac, Lawrence, Mass. Long trunk for cleaning cotton ..	Dec. 1, 1857
3,860	Hicks, William Cleveland, Summit, N. J. Breech-loading fire-arm. (Reissued May 9, 1865, again reissued Jan. 18, 1870, and again reissued March 1, 1870) ..	Mar. 10, 1857
18,640	Hoe, Richard M., West Farms, N. Y. Mode of operating the fly-frame of printing-presses ..	Nov. 17, 1857
804	Hogle, Sidney S., Berea, Ohio. Harrow. (Reissued Aug. 30, 1859) ..	Mar. 17, 1857
17,567	Holmes, James G., Charleston, S. C. Chair for invalids ..	June 16, 1857
16,947	Houston, William H., Peabody, Mass. Machine for composing and distributing type ..	Mar. 31, 1857
17,838	Hulskamp, G. Henry, New York, N. Y. Metallic bridge for piano-fortes ..	July 21, 1857
16,923	Humphrey, John, Keene, N. H. Machine for cutting slots in clothes-pins ..	Mar. 31, 1857
2,500	Huson, Edgar, Ithaca, N. Y. Wagon. (Reissued March 5, 1867) ..	Feb. 17, 1857
16,732	Hutchins, Charles, deceased, by G. F. Hutchins, administrator, East Douglas, Mass. Machine for making axes ..	Mar. 3, 1857
3,400	Jackson, Silas E. and Morgan P., Boonville, N. Y. Mowing-machine. (Reissued May 25, 1869) ..	Dec. 29, 1857
1,653	Jewett, Stanley A., Cleveland, Ohio. Melodeon. (Reissued April 19, 1864) ..	Oct. 13, 1857
16,387	Johnson, Albert F., Parkville, N. Y. Sewing-machine ..	Jan. 13, 1857
17,331	Johnson, Asa, Brooklyn, N. Y. Mode of fastening sheet-metal on roofs, &c. ..	May 19, 1857
4,171	Johnson, Asa, New York, N. Y. Machine for rolling cornices. (Reissued Nov. 1, 1870) ..	Dec. 22, 1857
505	Kelly, William, Louisville, Ky. Manufacture of iron. (Reissued Nov. 3, 1857) ..	June 23, 1857
17,685	Lamb, Salem T., New Albany, Ind. Self-acting rake for harvesters ..	June 30, 1857
18,460	Latta, A. B., deceased, by Finley Latta, administrator, Cincinnati, Ohio. Steam-generator ..	Oct. 20, 1857
1,228	Leonard, Andrew, deceased, by John Benedict, administrator, Kenosha, Wis. Mode of casting seamless skeins for wagons. (Extension of Division A.) (Reissued July 27, 1858, and again reissued Oct. 8, 1861) ..	Feb. 24, 1857
1,229	Same.....Cast seamless thimble-skeins for wagons. (Extension of Division B.) (Reissued July 27, 1858, and again reissued Oct. 8, 1861) ..	Feb. 24, 1857
18,509	Lovejoy, Daniel, and George F. Butterfield, deceased, by Elizabeth S. Butterfield, administratrix, Lowell, Mass. Grinding and polishing machine ..	Oct. 27, 1857
17,684	Lythrop, Francis C., Trenton, N. J. Iron truss-frame for bridges ..	June 30, 1857
16,568	Lyman, Asa S., New York, N. Y. Accelerating fire-arm ..	Feb. 3, 1857
1,843	Mackenzie, Philip W., Blauveltville, N. Y. Cupola and other furnaces. (Reissued Feb. 10, 1863, and again reissued Dec. 27, 1864) ..	Aug. 25, 1857
3,524	Manny, John P., Rockford, Ill. Harvester. (Division A.) (Reissued June 29, 1869) ..	July 14, 1857
3,525	Same.....Harvester.....(Division B.) (Reissued June 29, 1869) ..	July 14, 1857
3,526	Same.....same.....(Division C.) (Reissued June 29, 1869) ..	July 14, 1857
3,580	Same.....same.....(Division A.) (Reissued Aug. 3, 1869) ..	July 14, 1857
3,581	Same.....same.....(Division B.) (Reissued Aug. 3, 1869) ..	July 14, 1857
118,510	Same.....same.....	Oct. 27, 1857
18,942	Martin, A. C. and M. M. Wombaugh, deceased, by William H. S. Ewell, administrator, Cincinnati, Ohio. Method of governing the cut of circular-sawing machinery ..	Dec. 22, 1857
17,108	Matratt, Cornelius, Waterford, N. Y. Method of securing the doors of hay-presses, &c. ..	April 21, 1857
493	Milligan, Julia M., New Albany, Ind. Abdominal supporter. (Reissued Sept. 15, 1857) ..	Feb. 10, 1857
4,506	Mix, Garry I., Yalesville, Conn. Iron spoon. (Reissued Aug. 8, 1871) ..	Oct. 27, 1857
603	Monnier, Alfred, Philadelphia, Pa. Manufacture of sulphuric acid. (Reissued Oct. 6, 1857, and again reissued Sept. 21, 1858) ..	Aug. 11, 1857
18,154	Monson, Charles, New Haven, Conn. Extension gas-tube ..	Sept. 8, 1857
1,167	Munger, Lyman F., Rochester, N. Y. Lock. (Reissued April 2, 1861) ..	July 14, 1857
16,772	Myers, Lewis B. and Henry A., Elmore, Ohio. Seeding-machine ..	Mar. 3, 1857
3,489	Nettleton, Wilford H., Bristol, Conn., Charles Raymond, Guelph, Canada, and Anson Hatch, New Haven, Conn. Machine for turning pillars for clock-movements. (Reissued June 8, 1869) ..	Nov. 17, 1857

List of patents extended during the year 1871—Continued.

No.	Name, residence, and invention or discovery.	Date.
18,646	Newton, Alexander S., Brandon, Vt. Machine for turning wooden boxes.	Nov. 17, 1857
17,110	Nippes, Albert S., deceased, by Daniel S. Nippes, administrator, Upper Merion Township, Pa. Grinding-saw	April 21, 1857
17,445	Norton, Eugene L., Charlestown, Mass. Process of manufacturing leather shoe-binding	June 2, 1857
18,766	Penniston, George W., North Vernon, Ind. Cotton and hay press	Dec. 1, 1857
1,345	Perley, Charles, New York, N. Y. Compound capstan for ships. (Reissued Oct. 7, 1862)	Aug. 4, 1857
17,632	Perrine, George P., Richmond, Va., and James E. Boyle, New York, N. Y. Hydrant	June 23, 1857
3,368	Plumer, William, Boston, Mass. Rock-channeling machine. (Reissued April 13, 1869)	Oct. 6, 1857
3,369	Same.....Rock-channeling machine. (Reissued April 13, 1869)	Oct. 6, 1857
17,896	Pratt, Daniel, Prattsville, Ala. Cotton-gin	July 14, 1857
18,704	Pratt, William, New York, N. Y. Safety-lamp	Nov. 24, 1857
17,451	Read, William T. B., Chicago, Ill. Harvester	June 2, 1857
17,012	Remsen, Henry R., Albany, N. Y. Mill for cleaning castings	April 7, 1857
16,881	Reynolds, Samuel, Elllisburgh, N. Y. Water-wheel	Mar. 24, 1857
920	Rice, Benjamin F., deceased, by Roxanna Rice, executrix, South Lancaster, Mass. Machine for making paper bags. (Reissued March 6, 1860)	April 28, 1857
18,249	Robertson, T. J. W., Washington, D. C. Hand-stamp	Sept. 22, 1857
12,693	Rodefer, Joseph, deceased, by Ann M. Rodefer, administratrix, Springfield, Ohio, Bedstead-fastening	April 10, 1855
17,299	Roward, Archibald H., Allegheny City, Pa. Binding books	May 12, 1857
17,394	Royce, William A., Newburgh, N. Y. Machinery for compressing gaseous bodies	May 26, 1857
4,116	Sarven, James D., New Haven, Conn. Carriage-wheel. (Reissued Aug 11, 1868, and again reissued Sept. 6, 1870)	June 9, 1857
16,853	Savage, Elliot, West Meriden, Conn. Machine for cutting and bending sheet-metal	Mar. 17, 1857
18,073	Sayre, Charles H., Utica, N. Y. Cultivator	Aug. 25, 1857
656	Sellers, William, Philadelphia, Pa. Machine for threading bolts. (Reissued Feb. 8, 1859)	Dec. 1, 1857
18,774	Seymour, Pierpont, East Bloomfield, N. Y. Machine for spreading lime and other fertilizers	Dec. 1, 1857
1,150	Shares, Daniel W., Hamden, Conn. Harrow. (Reissued March 12, 1861)	Jan. 27, 1857
16,884	Sickles, Theophilus E., Omaha, Nebr. Steam-brake for railroad-cars	Mar. 24, 1857
4,240	Slawson, John B., New York, N. Y. Passenger fare-box. (Reissued May 4, 1858, and again reissued Jan. 24, 1871)	July 28, 1857
16,936	Sloan, William D., New York, N. Y. Automatic lathe for turning irregular forms	Mar. 31, 1857
18,605	Smith, Earle Harry, Bergen Heights, N. J. Sewing-machine	Nov. 10, 1857
16,254	Smith, Samuel R., Cincinnati, Ohio. Method of feeding lumber laterally in sawing-machines	Jan. 20, 1857
2,483	Stealey, Thomas L., Middlebourne, W. Va. Harvester. (Reissued Nov. 6, 1866, and again reissued Feb. 12, 1867)	Dec. 15, 1857
3,133	Stevens, Lafayette, Elmira, N. Y. Boring-machine. (Reissued Sept. 22, 1868) ..	Dec. 15, 1857
16,557	Stimpson, James, Baldwinville, Mass. Method of joining boxes, &c.	Feb. 3, 1857
18,713	Stow, Orson W., Plantsville, Conn., and Augustus Barnes, Southington, Conn. Candle-snuffer	Nov. 24, 1857
14,119	Strong, Francis M., and Thomas Ross, Vergennes, Vt. Platform-scale	Jan. 15, 1856
1,331	Thomas, Channcey, Boston, Mass. Carriage-prop. (Reissued Aug. 26, 1862) ..	Sept. 22, 1857
18,874	Thompson, Moses, deceased, by Charles N. Black, administrator <i>de bonis non</i> , New York, N. Y. Bagasse-furnace	Dec. 15, 1857
18,065	Toulman, John, Worcester, Mass. Vibrating-shears	Aug. 25, 1857
928	Towne, Lauriston, Providence, R. I. Chain-machine. (Reissued March 13, 1860)	Oct. 20, 1857
3,392	Vansands, Horace, Middletown, Conn. Blind-fastening. (Reissued April 20, 1869)	May 5, 1857
16,425	Vaughan, John G., Middleborough, Mass. Mode of lathing and plastering	Jan. 13, 1857
18,113	Watrous, James A., Green Spring, Ohio. Apparatus for suspending eaves-troughs	Sept. 1, 1857
17,949	Welling, William M., New York, N. Y. Factitious ivory	Aug. 4, 1857
18,309	West, J. D., East Orange, N. J. Pump	Sept. 29, 1857
18,482	White, T. W., Milledgeville, Ga. Cotton-seed planter	Oct. 20, 1857
17,992	Whitney, Baxter D., Winchendon, Mass. Machine for smoothing planed wooden surfaces	Aug. 11, 1857
17,814	Whiton, Edward F., Stafford Springs, Conn. Centering-machine	July 14, 1857
16,417	Whittemore, D. H., Worcester, Mass. Machine for paring and slicing apples ..	Jan. 13, 1857
16,666	Same.....Machine for paring apples	Feb. 17, 1857
1,775	Willard, Hosea, and Robert Ross, Vergennes, Vt. Harvester. (Reissued Sept. 27, 1864)	Nov. 3, 1857
1,776	Same.....Harvester. (Reissued Sept. 27, 1864)	Nov. 3, 1857
1,780	Same.....same.....(Reissued Sept. 27, 1864)	Nov. 3, 1857
1,781	Same.....same.....(Reissued Sept. 27, 1864)	Nov. 3, 1857
2,132	Williams, William L., New York, N. Y. Machine for splitting wood. (Reissued Dec. 19, 1865)	April 14, 1857
16,668	Wilmot, Samuel R., Bridgeport, Conn. Operating-valve of steam-engines	Feb. 17, 1857
492	Winslow, Charles, Lynn, Mass. Elastic gore-cloth. (Reissued Sept. 15, 1857) ..	Aug. 4, 1857
2,311	Woodward, Daniel A., Baltimore, Md. Solar camera. (Reissued July 10, 1866) ..	Feb. 24, 1857

ALPHABETICAL LIST OF INVENTIONS.

Invention or discovery.	Name of patentee.	No.
A.		
Abdominal supporter	J. V. Richardson	118, 645
Accordeons, Musical notation for	C. F. Zimmerman	110, 719
Acetate of lime from pyroligneous acid, Manufacture of.	J. Bell	114, 517
Acetic acid, Manufacture of	C. J. T. Burcey	118, 788
Acetic acid, Purifying	J. F. Cavarly	121, 586
Acid-carboys, Apparatus for discharging	W. Gee	120, 259
Acid phosphates for use in baking-powders, Manufacture of.	N. P. Rice	110, 680
Acid, pyroligneous, Purifying	C. F. Binder	116, 142
Adding-machine	E. M. Hamilton	117, 169
Addressing	W. H. Clague and R. R. Randall	121, 931
Addressing-machine	G. A. Davison	116, 567
Addressing-machine	J. K. Rukenbrod	121, 900
Advertising-cabinet, Electric	H. W. McAllister	115, 494
Advertising-device	J. F. Emery	113, 409
Advertising-device	W. H. Reiff	114, 198
Advertising medium, Ornamental	J. O. Belknap	116, 799
Advertising show-case	W. H. Reiff	121, 196
Air and gas, Apparatus for carbureting	F. H. Lutkewitte	113, 317
Air and gas, Apparatus for carbureting	O. Tirill	118, 302
Air and gas, Apparatus for mixing	T. C. Hopper	121, 719
Air and gas, Carbureter for	L. Marks	114, 316
Air, Apparatus for carbureting	H. A. Chapin	111, 175
Air, Apparatus for carbureting	A. D. Bell	112, 111
Air, Apparatus for carbureting	C. C. Beers	113, 968
Air, Apparatus for carbureting	G. Rex	114, 709
Air, Apparatus for carbureting	A. B. Fitts	114, 787
Air, Apparatus for carbureting	J. F. Barker	115, 562
Air, Apparatus for carbureting	B. Sloper	115, 988
Air, Apparatus for compressing	J. S. Patric	120, 094
Air, Apparatus for condensing	J. S. Patric	120, 095
Air-chamber for stoves, Auxiliary	J. H. Goodfellow	121, 506
Air-compressor, Hydraulic	M. Hey	117, 285
Air-compressor, Hydraulic	W. E. Prall	120, 597
Air engine or fan-blower	G. C. Hawkins	110, 915
Air-pump	C. B. Hardick	111, 742
Air-pump	R. M. Marchant	112, 060
Air-pumps, Supplying water to	J. F. Haskins	117, 626
Air, steam, &c., Hot-blast stove for heating	C. W. Siemens, E. A. Cowper, and C. Cochrane	111, 691
Alarm-apparatus for steam-boilers	J. Kirk	119, 522
Alarm-bell, Electro-magnetic	C. Williams, jr	111, 707
Alarm, Burglar	W. Reynolds	111, 003
Alarm, Burglar	J. McDowell	111, 959
Alarm, Burglar	R. Lee	112, 359
Alarm, Burglar	J. T. Mygatt and J. Downing	113, 082
Alarm, Burglar	J. Morgan, jr	117, 444
Alarm, Burglar	T. P. Coulston	118, 345
Alarm, Burglar	M. A. Holland	118, 939
Alarm, Burglar	R. W. Newberry	120, 313
Alarm, Burglar	A. Q. Ross	120, 399
Alarm, Burglar	W. F. Gardner	121, 862
Alarm, Burglar, and hotel-room indicator	L. C. Gosson	114, 001
Alarm, burglar, Electro-magnetic	W. B. Guernsey	112, 704
Alarm, burglar, Electro-magnetic	W. B. Guernsey	112, 705
Alarm, burglar, Electro-magnetic	W. B. Guernsey	112, 706
Alarm, burglar, Electro-magnetic	W. E. Faer	113, 036
Alarm, burglar, Electro-magnetic	J. P. Snyder	113, 589
Alarm, burglar, Electro-magnetic	J. G. Butler	114, 406
Alarm, burglar, Electro-magnetic	G. E. Cook and J. H. Guest	118, 199
Alarm, Burglar, for windows	M. A. Holland	118, 940
Alarm, Combined fire and burglar	H. L. Brower	118, 191
Alarm, Combined fire and burglar	L. Giebrich	120, 261
Alarm-drawer, Burglar	J. Murphy	112, 619
Alarm, Fire	H. N. Shultz	113, 460
Alarm, Fire	J. N. Pitts and J. E. Russell	119, 713
Alarm, Fire	H. L. Brower	120, 029
Alarm, Fog	S. G. Cabell	117, 861
Alarm for letter-boxes	A. Taylor	121, 218
Alarm for locomotive engines	R. A. Filkins	110, 643
Alarm, Hydraulic pressure	J. L. Pillsbury and J. S. Shorb	114, 849
Alarm-lock, Electrical	F. Girard	112, 585

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Alarm-lock for tills	W. H. Tucker	119, 202
Alarm, Low-water	J. Stanton	114, 216
Alarm, Low-water	J. C. Leistner and A. Keyser	119, 037
Alarm, Nautical	S. G. Cabell	116, 152
Alarm, Railway	G. Draper	111, 824
Alarm, Target	A. Anderson	112, 204
Album, Advertising	G. W. Hawes	120, 260
Album, Advertising	W. S. Gavan	122, 005
Alcohol and other spirits, Apparatus for the treatment of.	R. D. Turner	111, 791
Ale-casks, &c., Composition for coating	C. P. Matthews	118, 738
Alloy, Bronze	G. M. Levi and C. M. Künzel	120, 984
Alloy for the manufacture of plow mold-boards	W. Magee	119, 091
Alloy of copper and tin	A. E. Lavroff	118, 372
Alloy or bronze	G. M. Levi and C. M. Künzel	115, 220
Amalgamating gold in tailings, Apparatus for	T. A. Pratt	121, 296
Amalgamating the precious metals and preventing the loss of mercury	J. S. Phillips	114, 848
Anchor	G. C. Pattison	111, 144
Anchor	G. C. Pattison	111, 145
Anchor	W. M. Hughes	112, 247
Anchor	A. B. Babbitt	115, 011
Anchor	C. A. Chamberlin	116, 806
Angular strap-hinge	C. F. Hawley	115, 851
Animal and vegetable fibers, Apparatus and process for treating.	W. Adamson	118, 668
Animal and vegetable substances, Process and apparatus for drying and preserving.	C. Alden	121, 569
Animal-charcoal, Purifying	H. Eissfeldt and C. Thumb	113, 279
Animal-hopple	G. L. Brent	115, 691
Animal-poke	H. F. Chapin	112, 546
Animal-poke	F. M. Moulton	115, 884
Animal-poke	H. F. Chapin	116, 683
Animal-poke	N. Denny	117, 751
Animal-power, Adjustable	N. Potter	112, 179
Animal-power apparatus	O. M. Brock	110, 892
Animals, Musical cage for	A. Supperio	122, 138
Animal substances, Preserving	H. Medlock and W. Bailey	117, 660
Animals, Swivel-pin for tethering	W. Lyon	113, 318
Ankle-brace	J. S. Niswander	112, 952
Annunciator, Electro-magnetic	J. Capron	117, 979
Annunciator, Electro-magnetic	E. Gray	118, 231
Anti-friction bearing for shafts	J. Switzer	118, 297
Ants, Device for obstructing	E. Hooks	111, 875
Apple-corer	S. C. Collins	120, 857
Apple parer and slicer	C. A. Foster	116, 943
Apple-pulping machine	G. Clayton	115, 705
Arbor for saws and grooving-tools	J. Rand	115, 103
Arches, Construction of	T. Alsip	120, 608
Arch for lime-kilns	A. McBride	121, 183
Armature for electro-magnets	S. Jones	118, 538
Arm for railway-car seats	A. Prior	121, 255
Article for table service, Covered	H. C. Wilcox	117, 026
Articles of enameled metal, Manufacture of	G. A. Burrough	115, 278
Articulator, Dentists'	L. Hoffstadt	118, 242
Asbestos and other fibrous minerals, Treating	C. A. Stevens	112, 650
Asbestos and other mineral fibers for useful purposes, Treating.	C. A. Stevens	112, 649
Ash-pan for steam-boilers	J. Gates	120, 870
Atomizer	C. P. Janes	115, 615
Atomizer	J. J. Essex	116, 286
Atomizer	H. D. Lockwood	117, 651
Attachment of cams for fliers of printing-presses, Adjustable.	C. Potter, jr	111, 776
Attachment to gas service-pipe for automatically cutting off the gas in case of fire.	W. Humphreys	114, 144
Auger	B. Walch	111, 099
Auger	W. A. Ives	111, 648
Auger	J. Swan	115, 541
Auger	H. Pitcher	118, 552
Auger	R. M. Lafferty and E. P. Smith	118, 806
Auger and reamer, Combined	O. W. Townsend	111, 990
Auger-bit	J. C. Mills	112, 063
Auger-bits, Construction of dies for forming the lips of	R. N. Watrous	117, 838
Auger-bits, Device for resetting	C. W. Beals	117, 594
Auger-bits, Machine for forming lips of	J. Swan	116, 509
Auger-bits, Method of forming spur-lip of	W. A. Ives	112, 255
Auger, Earth	T. Orchard	114, 185
Auger, Earth	N. H. Lindley	117, 180
Auger, Earth-boring	W. W. Jilz	117, 542
Auger for boring boxes	R. L. Priester	120, 827

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Auger-handle	W. A. Ives	110, 920
Auger, Hollow	A. Bauman and O. O. Witherell	111, 167
Auger, Hollow	S. Katze	117, 784
Auger, Hollow	J. S. Seymour	119, 096
Auger, Hollow	W. A. Clark	121, 707
Auger, Post-hole	A. R. Clark	118, 196
Auger, Well	E. Altman	111, 300
Auger, Well	W. H. Stone	116, 883
Auger, Well	H. R. King	120, 076
Awl	T. Kenney	114, 446
Awl	S. Babbitt	117, 501
Awl for heel-machines	H. H. Bigelow	113, 008
Awning for animals	S. Moffitt	113, 323
Awning, Window	C. C. Moore	121, 650
Ax	W. Peabody	118, 266
Ax-bit blank machine	E. Bartholomew	116, 011
Axes, Machine for making	H. H. Parsons	121, 172
Axes, Method of manufacturing	G. Palmer and C. W. Hubbard	118, 264
Ax-handle	J. M. Sears	115, 532
Axle and axle-box for vehicles	E. Von Jeinsen and J. M. McDonald	113, 116
Axle and boxing, Carriage	J. W. and A. W. Beer	117, 730
Axle-box	D. H. Dotterer	115, 449
Axle-box	A. Goodyear, (2d)	116, 702
Axle-box	D. Dalzell	117, 390
Axle-box	S. A. Wing and J. G. Johnson	118, 770
Axle-box, Anti-friction	P. Seyl, P. Fischer, and P. Brenner	117, 211
Axle-box, Car	J. J. Lahaye	116, 721
Axle-box, Car	W. G. Parr	119, 877
Axle-box, Car	C. Williams	120, 473
Axle-box, Car	M. Sessions and D. Muzzey	122, 069
Axle-box, Carriage	E. W. Ives	114, 148
Axle-box cover	W. H. Fitzgerald	114, 122
Axle-box, Railway	J. B. Sutherland	114, 877
Axle-box, Railway-car	W. S. Auchincloss	121, 572
Axle, Carriage	H. Killam	110, 766
Axle, Carriage	E. Wells	112, 757
Axle, Carriage	E. W. Ives	114, 147
Axle, Carriage	E. F. Wagner	115, 913
Axle for railroad-cars, Hollow	W. A. Lewis	119, 866
Axle for vehicles	J. W. Cremin	120, 418
Axle for vehicles	E. Ball, jr	121, 574
Axle for vehicles	W. H. Sparks	122, 074
Axle-gauge	R. K. Vestal	113, 598
Axle-gauge	H. W. Spaulding	115, 778
Axle, Railway-car	E. Doty and G. W. Miltimore	119, 831
Axles and journals, Mode of lubricating	W. Kenworthy and J. H. Pollitt	115, 618
Axles, Attaching wheels to	J. W. Beal	121, 270
Axles, Compound for lubricating	G. M. Denison	120, 631
Axles, Constructing	J. Montgomery	121, 187
Axles, Die for forming	J. Harrington	115, 196
Axle-shield for carriages	B. F. Robbins	119, 281
Axle-skein	L. Mayhew	113, 681
Axle-skein	L. Mayhew	118, 377
Axle-skein	L. Mayhew	120, 303
Axle-skeins, Truss-brace for	O. Vanorman	121, 692
Axles, Machine for turning	A. F. Moore	113, 078
Axles, Mechanism for adjusting and securing car-wheels to	G. G. Lobdell	114, 452
Axles, Method of attaching wheels to	F. Alger	117, 958
Axles, Mode of lubricating	J. Ives	114, 298
Axles of wagons, Lubricating arrangement for	C. A. Wakefield	115, 914
Axles, railway-car, Bearing for	E. D. Murfey	116, 475
Axle, Wagon	A. Keesberger	113, 896
Axle, Wagon	J. and P. Herrmann	115, 317

B.

Baby-jumper	J. P. Faulks	118, 599
Baby-tender	S. M. Simonds	113, 103
Baby-tender	A. H. Carson and A. Brown	113, 979
Baby-walker	C. Maschmann	116, 073
Baby-walker, hanging-chair, &c.	L. O. Colvin	116, 813
Back-center for milling-machines	A. H. Brainard	110, 951
Back-lash in machinery, Device for preventing	J. L. Post	112, 736
Back-saw	W. Clemson	119, 967
Backs for carriage-seats, Manufacture of	B. Hurlburt	116, 449
Bagatelle	M. Redgrave	115, 357
Bagatelle game and apparatus	W. Evers	121, 761
Bag filling and weighing machine	C. A. Whelan and C. T. Wakeley	110, 707
Baggage-check	F. X. Bellerive	116, 667
Baggage-truck	W. H. Brown	121, 923

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Bagging for cotton, &c., Manufacture of.....	T. Tebow.....	115, 388
Bag-holder.....	I. Allen.....	116, 661
Bag-holder.....	T. J. Trapp.....	116, 777
Bag-holder.....	C. M. Mitchell.....	116, 981
Bag-holder.....	O. Barrett and A. D. Brooks.....	118, 897
Bag holder and filler.....	W. F. Lum.....	121, 529
Bag holder and filler, Combined.....	W. F. Lum.....	112, 727
Bag-holder and scales, Combined.....	W. Zimmerman.....	112, 522
Bag, Packing.....	E. A. Merrill.....	118, 626
Bags, &c., Clasp-fastener for.....	A. H. Balch and W. D. E. Nelson.....	113, 834
Bags, &c., Fastening for.....	G. C. Setchell and C. L. Taylor.....	122, 135
Baker and broiler, Combined.....	W. H. Miller.....	112, 479
Baking-powder, Putting up.....	G. F. Wilson.....	118, 768
Balance.....	C. C. Marsh.....	119, 871
Balanced valve, Anti-friction.....	W. Siefert.....	113, 102
Balance steam-valve, Oscillating.....	J. C. Bromley.....	111, 513
Balancing vertical reciprocating masses.....	W. F. Durfee.....	112, 792
Baldric.....	V. Price.....	112, 180
Bale-tie.....	J. E. Perkins.....	112, 375
Bale-tie.....	J. Holmes and J. C. H. Slack.....	113, 518
Bale-tie.....	J. L. Sheppard.....	118, 286
Bale-ties, Device for making.....	M. N. Coe.....	121, 756
Baling short-cut hay or straw.....	W. Baldwin.....	112, 140
Balsam, Medical compound or restorative.....	J. C. Brecht.....	120, 705
Bandage, Surgical.....	J. Smitley.....	114, 615
Bandage, Surgical.....	J. G. Grocock.....	120, 814
Band cutter and feeder for thrashing-machines, Combined.	S. S. Myers and J. McCauley.....	111, 469
Band-cutters and thrashing-machines, Attachments of.	S. S. Myers and J. McCauley.....	118, 634
Band for baling cotton, &c., Metallic.....	J. Downes.....	120, 727
Banding compressed wood, Method of.....	C. B. Gilman.....	113, 044
Band-punch and screw-driver, Combined.....	G. W. Schofield.....	122, 286
Band-sawing machine.....	J. Richards.....	114, 710
Band-sawing machine.....	W. H. Doane and W. P. McKee.....	120, 949
Bank-check, &c.....	A. C. Paquet.....	114, 963
Bank-checks, and mode of preventing and detecting the alteration of.	S. Crane.....	118, 204
Bank-note.....	J. Gibson, jr.....	119, 599
Barges, Ratchet-coupling for.....	W. W. Patterson and E. Bishop.....	111, 564
Bark, Apparatus for leaching.....	H. C. Crowell.....	111, 730
Barn-forks, Manufacture of.....	C. T. Beebe.....	121, 983
Barometer, Self-recording.....	D. Peelor.....	113, 693
Barrel.....	H. G. Porter.....	111, 868
Barrel.....	H. Willard.....	112, 875
Barrel.....	J. Tomlinson.....	119, 546
Barrel.....	H. G. Porter.....	122, 133
Barrel and other cylindrical packages.....	H. Willard.....	120, 920
Barrel-car.....	W. A. Plantz.....	115, 097
Barrel, Cast-iron.....	A. Putnam, jr.....	111, 679
Barrel-fastening.....	E. T. Gilmore.....	121, 865
Barrel-filler.....	L. H. Watson.....	113, 954
Barrel-head.....	J. B. Barsaloux.....	116, 398
Barrel-head.....	S. S. Gray.....	117, 274
Barrel-head.....	A. Hanvey.....	117, 536
Barrel-heads, Machine for turning.....	J. J. Ralya.....	113, 795
Barrel, keg, and pail.....	G. W. Banker.....	115, 807
Barrel-machine.....	W. R. and E. Middleton.....	114, 321
Barrel-pitching machine.....	A. De Witzleben.....	117, 956
Barrel-rolling apparatus.....	L. L. Hyatt and A. G. Hüpfel.....	113, 771
Barrels and casks, Apparatus for closing.....	A. Koegler.....	122, 177
Barrels and casks, Apparatus for pitching beer and other.	W. Vogt.....	116, 896
Barrels and casks, Machine for distributing pitch in ..	B. J. Stukenborg.....	116, 772
Barrels, Apparatus for lifting.....	J. S. Brewer.....	112, 214
Barrels, casks, &c., Apparatus for pitching.....	L. Schulze.....	115, 530
Barrels, Device for filling.....	F. Stitzel.....	121, 134
Barrels for beer, &c., Construction of.....	M. Have.....	111, 058
Barrels, Machine for pitching.....	D. Myers.....	122, 128
Barrels, Pitching.....	W. Anheuser.....	113, 480
Barrel, tank, and cask for transporting acids and petroleum.	J. B. Davenport.....	118, 438
Bar-solder, Casting.....	A. Schoenberg.....	110, 684
Bars or rods of metal, ornamental, Manufacture of ..	S. Tuddenham.....	111, 097
Baryta, Manufacture of artificial sulphates of.....	J. Philip.....	120, 771
Basin, Wash.....	C. C. Marsh.....	120, 300
Basket.....	B. F. Tutbill.....	116, 374
Basket.....	E. B. Cole.....	121, 758
Basket for house-plants.....	A. P. Eastman.....	112, 433
Basket, Fruit.....	H. Carpenter.....	120, 620
Basket, Fruit and cake.....	C. H. Latham.....	118, 027

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Baskets, Former for.....	H. C. Jones	113, 058
Basket-splint	I. F. Wilcox	121, 304
Basket, Stave	H. C. Jones	113, 059
Bath and washstand	R. Cooper	111, 321
Bathing-apparatus	G. Scholl	118, 750
Bathing-apparatus	C. Venn	120, 555
Bath, Steam	C. Kaestner	113, 894
Baton, Alarm	J. F. Haskins	115, 464
Batter-pot	E. A. Jeffery	111, 548
Battery-current manipulator	J. Kidder	120, 750
Battery, Electric	L. Bassett	119, 298
Battery, Electric	V. Himmer	119, 763
Battery for telegraphing and other purposes, Electric	D. M. Cook	113, 399
Battery, Galvanic	D. Brook	114, 911
Battery, Galvanic	J. W. Powell	115, 119
Battery, Galvanic	J. Kidder	116, 451
Battery, Galvanic	L. Drescher	117, 057
Battery, Galvanic	E. Prevost	119, 175
Battery, Galvanic	J. Kidder	119, 855
Battery, Galvanic	J. A. Callaud	120, 034
Battery, Galvanic	J. A. Robbins	120, 327
Battery, Galvanic	E. J. Leland	120, 651
Battery-gun, Revolving	R. J. Gatling	112, 138
Battledore	M. Cregen	117, 518
Beam-compass	J. Lyman	111, 954
Beam, floor and ceiling, Fire-proof	J. Hodgson and W. H. Brown	115, 472
Beam, Hollow	J. W. Cremin	122, 230
Beam or girder for fire-proof structures	W. W. Hughes	111, 063
Beam, steelyard, Revolving	H. Kirkwood	118, 862
Bean-harvester	J. A. and T. Wood	113, 125
Bearing and packing	E. D. Murfey	117, 558
Bearing for journals, Anti-friction	A. W. Hall	115, 602
Bearing for machinery	C. B. Richards	117, 682
Bearing for railway-car axles	E. D. Murfey	116, 475
Bearing for shafts, Anti-friction	J. Switzer	118, 297
Bearing for vertical shafts	M. Briggs	117, 597
Bearing of water-wheels, Anti-friction	B. Stetson	119, 424
Bearing-step and vertical shaft	F. A. Gardner	113, 867
Bearing surface and journal of machinery	J. Wharton	118, 086
Bed and seat bottom	W. F. Clark	118, 908
Bed and seat spring	J. P. Chamberlin	114, 923
Bed-bottom	W. R. Judson	110, 854
Bed-bottom	E. C. Thompson	111, 402
Bed-bottom	V. Bell	111, 807
Bed-bottom	J. H. Allyn	112, 765
Bed-bottom	M. Faloon	112, 912
Bed-bottom	J. Tinney	113, 596
Bed-bottom	O. S. Osgood	114, 704
Bed-bottom	R. V. Jenks and W. A. Miller	115, 863
Bed-bottom	M. B. Towslee	116, 237
Bed-bottom	G. W. Robinson	116, 354
Bed-bottom	O. S. Osgood	118, 666
Bed-bottom	G. Richardson	118, 745
Bed-bottom	S. Hobbs	118, 804
Bed-bottom	P. Agger	118, 834
Bed-bottom	S. Gissinger	119, 600
Bed-bottom	C. Van Deusen	119, 727
Bed-bottom	G. D. Leonard	119, 862
Bed-bottom	J. W. Hampton	120, 271
Bed-bottom	O. S. Osgood	120, 315
Bed-bottom	C. Johnson	120, 587
Bed-bottom	J. H. Sherman	120, 599
Bed-bottom	M. Kohn	121, 111
Bed-bottom	L. L. and A. J. Deming and R. Alden	121, 279
Bed-bottom	J. C. Walker and W. Lapish	121, 437
Bed-bottom	R. A. Smith	121, 473
Bed-bottom	A. D. McMaster	121, 647
Bed-bottom	E. P. Read	121, 728
Bed-bottom	E. P. Read	121, 729
Bed-bottom	T. H. B. Morehouse	122, 048
Bed-bottom, Paper	J. B. Crane	110, 958
Bed-bottom, seat, &c., Spring	C. Rich	111, 974
Bed-bottom, sofa, and chair-seat, Spring	C. Rich	116, 529
Bed-bottom, Spring	E. W. Maxson	111, 362
Bed-bottom, Spring	E. B. Hill	111, 646
Bed-bottom, Spring	H. Smith and J. Potter	112, 085
Bed-bottom, Spring	J. E. Lord	112, 158
Bed-bottom, Spring	A. Cole	112, 323
Bed-bottom, Spring	L. M. Bates	113, 385
Bed-bottom, Spring	A. E. Thayer	114, 225

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Bed-bottom, Spring	G. Speckner	114, 618
Bed-bottom, Spring	G. W. Robbins	114, 712
Bed-bottom, Spring	C. F. Manuel and D. M. Leonard	114, 955
Bed-bottom, Spring	E. L. Wright	116, 250
Bed-bottom, Spring	W. C. Hubbard	116, 712
Bed-bottom, Spring	D. V. Crandall	116, 815
Bed-bottom, Spring	C. H. Triphagen	117, 830
Bed-bottom, Spring	G. Brownlee	117, 976
Bed-bottom, Spring	P. Hill	118, 856
Bed-bottom, Spring	G. Wilson	119, 487
Bed-bottom, Spring	G. C. Grut	119, 602
Bed-bottom, Spring	F. P. Baldwin and C. T. Segar	119, 638
Bed-bottom, Spring	W. H. Woodworth	120, 142
Bed-bottom, Spring	H. Hard	121, 169
Bed-bottoms, Spring for	M. W. Farber	115, 043
Bed-bottom, Wire-woven	G. Richardson	118, 644
Bedclothes-retainer	J. Birkenhead	116, 013
Bed-cushion and other upholstering	H. H. Barnes	110, 820
Bed, Folding	L. Whitehead, sr.	113, 231
Bed, Folding	W. Wright	120, 924
Bed, Lounge	J. Brada	113, 012
Bed, Parlor	M. Crosby	119, 079
Bed, Sofa	A. Morris	118, 966
Bed, Sofa	J. Werner	118, 994
Bed, Sofa	G. Knell	120, 283
Bed, Sofa	C. C. Schmitt	113, 576
Beds of billiard and other tables, Fabrics for, and for other purposes.	L. A. Grill	116, 951
Bed, Spring	N. Mason	111, 554
Bed, Spring	B. Barstow	117, 036
Bed, Spring	J. Johnson	118, 018
Bed, Spring	J. M. Farnham	120, 865
Bed, Spring	J. Johnson	120, 881
Bed-springs, Machine for coiling	M. Van Vleck	112, 868
Bed-springs, spiral, Device for forming	E. L. Bushnell	117, 860
Bedstead	G. Snowden	111, 785
Bedstead	G. A. Jeremiah	112, 716
Bedstead	M. Lally	115, 485
Bedstead	I. Deyo	115, 716
Bedstead	C. F. Nahmmacher	115, 836
Bedstead	L. J. Johnson	117, 424
Bedstead	T. B. Baldwin	117, 724
Bedstead	S. Springer	121, 734
Bedstead and bed-bottom	F. G. Ford	111, 832
Bedstead and spring bed-bottom	W. McArthur	111, 364
Bedstead, bureau, and stand, Combined	A. and L. A. Parker	113, 692
Bedstead, Cabinet	S. S. Barr	119, 312
Bedstead-fastening	C. S. Comins	110, 632
Bedstead-fastening	S. Goetz	111, 528
Bedstead-fastening	J. Schelper	111, 878
Bedstead-fastening	R. M. Price	113, 925
Bedstead-fastening	S. A. Frayer	115, 725
Bedstead-fastening	E. T. Barlow	118, 424
Bedstead-fastening	T. W. Moore	120, 893
Bedstead-fastening	W. H. McPherson	121, 726
Bedstead, Folding	J. Turner	110, 697
Bedstead, Folding	K. Krenkel	112, 053
Bedstead, Invalid	W. O. Reid	111, 380
Bedstead, Invalid	J. H. Oerter	111, 561
Bedstead, Invalid	W. Heath	115, 054
Bedstead, Invalid	A. J. Russell	115, 108
Bedstead, Invalid	G. Smith	115, 371
Bedstead, Invalid	F. G. Ford	115, 948
Bedstead, Invalid	M. A. Ormsbee	116, 861
Bedstead, Invalid	T. A. McFarland	117, 440
Bedstead, Lounge	F. C. Payne	118, 047
Bedstead, Parlor	F. E. Coffin	111, 108
Bedsteads, Construction of	J. F. Hollister	114, 439
Bedsteads, Crib-attachment for	J. H. L. Wilson	113, 382
Bedstead, Sofa	W. Farson	120, 374
Bedstead, Sofa	C. F. H. Huff	114, 684
Bedsteads, Slat-holder for	D. B. Hubbard	118, 368
Beefsteak, Device for preparing for broiling	F. G. Ford	120, 734
Beefsteak, Machine for preparing	W. A. Clark	113, 260
Beefsteak-mangle	A. M. Bond	114, 396
Beer, ale, &c., Cooling-apparatus for	J. Locke	118, 542
Beer, &c., Process for making	T. Bergner and S. Zeisse	115, 018
Beer and other liquids on draught, Cooling and preserving	H. L. Bowker	118, 901
Beer, Apparatus for preserving and cooling	J. M. Heiss	115, 468
	J. Lorenz	115, 072

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Beer-barrels, Apparatus for aerating	J. Metzger.....	114, 839
Beer-cooler for beer on draught	H. Sell	112, 742
Beer with cold air, Apparatus for preserving and forcing.	F. Blucher	121, 577
Bees, Composition for stupefying	A. Y. Rozenbury	115, 107
Bees, House for the management of	M. A. Glass.....	116, 700
Bee-hive	J. Wheeldon	110, 809
Bee-hive	G. A. Brown and F. A. McCallen	110, 894
Bee-hive	T. S. Engledow	110, 909
Bee-hive	L. S. Sisson	110, 937
Bee-hive	A. Claypool	111, 107
Bee-hive	H. L. Heckman	111, 204
Bee-hive	D. H. Swartz	111, 273
Bee-hive	W. Wambach	111, 283
Bee-hive	A. Wilkinson	111, 289
Bee-hive	A. Bradshaw	111, 310
Bee-hive	S. Cuplin	111, 434
Bee-hive	J. H. Hendrick	111, 451
Bee-hive	J. A. McAnulty	111, 466
Bee-hive	M. J. Stearns	111, 696
Bee-hive	J. H. Gisler	112, 139
Bee-hive	H. S. Harned and F. S. Elliott	112, 243
Bee-hive	G. Marsh	112, 262
Bee-hive	F. Brewer	112, 317
Bee-hive	S. A., F. J., and J. B. Short, and J. Kile	112, 388
Bee-hive	W. J. Kelly	112, 813
Bee-hive	P. Nicolle	113, 084
Bee-hive	J. F. Metherd and S. Young	113, 187
Bee-hive	W. Reynolds and J. V. Brooks	113, 207
Bee-hive	D. Gebhart	113, 870
Bee-hive	C. and A. Jones	113, 892
Bee-hive	D. R. Read	113, 928
Bee-hive	W. R. King	114, 690
Bee-hive	J. F. Broomfield	114, 912
Bee-hive	D. M. Griffith	115, 843
Bee-hive	H. Harvey	115, 849
Bee-hive	J. Detrick and W. B. Niven	115, 941
Bee-hive	W. M. Henry	117, 539
Bee-hive	W. K. Sawyer	117, 690
Bee-hive	O. P. Reeve and C. C. Parker	117, 815
Bee-hive	S. C. Moore	117, 914
Bee-hive	E. W. Diefendorf	118, 520
Bee-hive	W. P. Shortridge	118, 822
Bee-hive	S. D. Stearns and G. Ellsworth	118, 827
Bee-hive	R. Arnold	118, 894
Bee-hive	E. D. Pugh	118, 972
Bee-hive	J. C. Edwards	119, 336
Bee-hive	A. H. Klepper	119, 366
Bee-hive	E. O'Connor	119, 991
Bee-hive	W. R. Clark	120, 624
Bee-hive	B. Benton	120, 698
Bee-hive	J. Burnham	120, 709
Bee-hive	A. Mutersbaugh	120, 766
Bee-hive	F. Varin	120, 799
Bee-hive	T. S. Collins and H. Senseman	120, 858
Bee-hive	M. R. Sanders	120, 899
Bee-hive	J. Wheeldon	120, 918
Bee-hive	S. Cuplin	120, 944
Bee-hive	A. F. Dickey	121, 597
Bee-hive	J. N. Hieronymus	121, 618
Bee-hive	E. S. Armstrong	121, 837
Bee-hive	H. A. Bathurst	121, 840
Bee-hive	W. W. Dodson and J. B. Bray	121, 999
Bee-hive	J. Tritt	122, 050
Bee-hive	H. A. Farman	122, 242
Bee-hive	J. S. Proctor	122, 279
Bee-hive	A. E. Woodhull	122, 302
Bee-hives, Honey-box for	E. C. Lewis	120, 885
Bees, House for the management of	M. A. Glass	116, 700
Bell	J. Regester	112, 631
Bell, Æolian chiming	H. Herrmann	111, 537
Bell, Alarm	S. C. Bond	114, 521
Bell, Call	H. A. Dierkes and J. Fretts	112, 907
Bell, Call	C. Volger	116, 241
Bell, Call	H. A. Dierkes	117, 871
Bell, Ceremonial	J. W. Smith	110, 875
Bell, Door	J. P. Connell	112, 903
Bell, Door	W. T. Munger	116, 082
Bell-hanging	A. L. S. Slykens	112, 032
Bell-holder, Stationary	S. Croll	111, 729
Bellows	A. F. Jones	117, 783
Bellows	J. H. Snyder	121, 678

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Bell-pull	A. L. Swan	120, 682
Bell, Sleigh	W. H. Nichols	116, 085
Bell-yoke attachment	C. H. Meneely	114, 585
Belt-fastener	W. C. James	117, 175
Belt-fastening	G. A. Brown	118, 785
Belt-fastening	M. Olmstead	121, 405
Belt-fastening	J. W. Hicks	121, 781
Belt-gearing	J. H. Butler	110, 955
Belt-gearing	G. C. Howard	112, 145
Belting, solid leather, Machine for cutting	T. J. Dickerson and O. B. Warren	120, 948
Belt-knives, Manufacture of	B. F. Radford	121, 963
Belt-shifter	W. H. H. Sisum	113, 939
Belt-shifter for spinning-jacks	A. Fox	121, 861
Belt-shipper	J. L. Otis	110, 674
Belt-shipping device for self-acting mules	H. Macon	114, 310
Belt-tightener	G. W. Runk	111, 257
Bench, Carpenters'	F. Starke	118, 980
Bench, Circular-saw	B. F. Dunklee	112, 908
Bench, Corn-husking	J. E. Draper	112, 131
Bench-dog	C. P. Whitman	118, 662
Bench-vice for wood-work	E. Sprague	111, 396
Bending-machine	J. Forbes	118, 920
Bending-machine, Tire	G. J. Riblet	114, 476
Bent cutter-bench and knee	E. Milner	121, 058
Bent sleigh-knee, bench, and brace	G. and H. Ives	115, 860
Berth for sleeping-cars	B. F. Manier	113, 539
Bessemer-converter, for converting crude iron into steel, &c.	H. Bessemer	117, 248
Bessemer steel, Apparatus for the manufacture of	H. Chisholm	111, 815
Bessemer steel, Apparatus for the manufacture of	H. Chisholm	114, 109
Bessemer steel, Converter for the manufacture of	H. Chisholm	115, 279
Bessemer steel, Plant for the manufacture of	J. B. Pearse	122, 052
Bevel, Adjustable	L. D. Howard	111, 746
Bevel, Adjustable	W. C. Ellis	112, 793
Bevel, Adjustable	J. A. Traut	114, 626
Bevel, Adjustable	E. A. Bell	114, 096
Beverage, Medicinal	A. S. Taylor	117, 942
Bicarbonate of soda, Manufacture of	W. H. Balmain	116, 664
Bidet, or hip-bath	D. Gibbons	120, 961
Billiard-balls and other composition articles, Manufacture of	L. Deitz, B. P. Wayne, and A. Stone	113, 272
Billiard-balls, knife-handles, and other articles, Process of coating	J. W. Hyatt	114, 945
Billiard-cushion	M. Delaney	117, 995
Billiard-cushion of rubber and gutta-percha	J. Murphy	119, 391
Billiard-marker	W. H. Newell	118, 044
Billiard-register	L. Godefroy	122, 167
Bin for warehouses	F. W. Aufderheide	121, 310
Binnacle for mariners' compasses	G. W. Richey and H. E. Bixby	116, 631
Bird-cage	G. Günther	112, 449
Bird-cage	G. L. Bolz, M. Grebner, and J. M. Jagel	120, 483
Bird-cage mat	I. A. Singer	113, 461
Bird-cages, Bottom of	O. Lindemann	120, 755
Bird-cages, Construction of	G. R. Osborn	114, 593
Bird-cages, Spring-perch for	E. Aldom	121, 742
Bit and reamer, Drill	P. W. Ward	121, 223
Bit, Boring	D. Kelly	116, 837
Bit-brace	W. P. Dolan	110, 960
Bit-brace	W. A. Ives	111, 649
Bit-brace	W. Cleveland	112, 419
Bit-brace	R. French	112, 799
Bit-brace	J. T. Lynam	113, 680
Bit, Bridle	A. Gilliam	116, 945
Bit, Bridle	S. C. Boughton	118, 900
Bit, Bridle	E. Vanauken	120, 913
Bit-stock	C. Manson	114, 314
Bit-stock	W. H. McCoy	118, 039
Bit-stock	S. Sawyer	118, 058
Bitters	A. Desaulniers	112, 558
Bitters	E. E. Crady	120, 042
Blackboard, Composition	R. W. Young	114, 246
Blacking-apparatus and boot-jack combined	J. M. McMaster	118, 809
Blacking-box holder	N. H. Talbot	117, 481
Blacking brush and box combined	H. S. Kerr	118, 805
Blacking-brush, Fountain	A. D. Pentz	111, 566
Blacking for leather	O. K. Tripp	120, 348
Blacking, Metal-founders'	J. C. Sellars	114, 978
Blacksmiths' hardy	C. F. Moore	117, 665
Blanks for cultivator-teeth, Machine for pointing	J. Pedder and G. Abel	112, 374
Blast attachment for lime-kilns	W. Hollenbaugh	120, 278
Blasting-plugin	J. H. Holsey	120, 438

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Blast-protector for exhausting-nozzles.....	J. H. Setchel	116, 873
Bleaching-powders, &c., Treating mixed gases containing chlorine for the production of.....	H. Deacon	118, 212
Bleaching-powders, Manufacture of	H. Deacon	118, 210
Bleaching-powders, sulphates, &c., Manufacture of.....	H. Deacon	121, 595
Blind-fastener	A. G. Batchelder	116, 257
Blind-fastener	G. K. Dearborn	119, 266
Blind-fastening	A. S. Lesuer	117, 649
Blind-slat machine	G. F. Woolston	112, 666
Blind-slat machine	K. Kendal and L. H. Stark	118, 023
Blind-slat operator	Q. M. Youngs	118, 573
Blind-slat operator	H. B. Lum	119, 625
Blind-slat regulator	J. T. O'Donoghue and A. Leavitt	111, 770
Blind-slats, Machine for crimping.....	M. Buck	118, 102
Blind-slats, Machine for making	P. Schumacher	117, 471
Blinds, Machine for wiring.....	J. H. Nelson	120, 454
Blind-staples, Machine for making and setting	J. Keith	112, 719
Blind-staples, Method of boxing	B. C. Davis	115, 175
Blind-stile boring-machine	E. H. Smith	120, 465
Blind-stiles, Machine for mortising.....	L. M. Collins	114, 765
Blind-stop	P. A. Burgess	122, 154
Blind-wiring machine	E. F. Dunaway	112, 791
Block, Pulley	J. W. Norcross	113, 688
Block, Sheave or pulley	H. Nick	113, 913
Blocks of wood-pavements, Device for connecting	D. H. Mulford	117, 802
Block, Stereotype	J. Fish	114, 786
Blotting-pad	A. Q. Collins	112, 787
Blower	W. W. Webb	113, 229
Blower	E. Carleton	116, 265
Blower	S. H. Hartman	117, 776
Blower	T. Rogers	120, 328
Blower	W. H. Bailey	120, 929
Blower for chimney-stacks	N. L. Blanchard	117, 252
Blower, Rotary	H. C. McIlwain and A. Brumfiel	110, 929
Blower, Rotary	W. G. Hyndman	122, 118
Blower-stand	P. Bradford	119, 500
Blower-tube for furnaces.....	B. W. Reynolds	117, 206
Blowing-machine	J. M. Williams	115, 259
Blow-off pipe for steam-boilers.....	J. S. Griffith	116, 179
Boards, Machine for edging.....	J. K. Sanborn	120, 170
Boat, Canal	R. Hooper	117, 419
Boat-detaching apparatus.....	G. Stancliff	111, 398
Boat-detaching apparatus.....	D. L. Cohen	113, 981
Boat-detaching apparatus.....	I. A. Richards	115, 360
Boat-detaching apparatus.....	H. E. Foster	115, 838
Boat, Ferry	H. Clenny	116, 024
Boat hoisting, lowering, and detaching apparatus	J. Humphries	119, 984
Boat-lowering apparatus	G. W. Mallory	112, 939
Boats, Propelling, by oars	T. G. Pringle	116, 095
Boats, Propelling-apparatus for.....	J. Repetti	111, 681
Bobbin	J. N. Stearns	116, 103
Bobbins, Machine for winding	J. Adams and W. A. Tolman	115, 264
Bobbins, Machine for winding	F. H. Morrill	113, 325
Bobbins or spools, Varnish for coating the surfaces of	W. Brooks	115, 816
Bobbin-winder	H. A. House	112, 345
Bob-sled	A. H. Walrath	118, 831
Bob-sled	D. Holtz	119, 611
Body-loop	R. R. Miller	116, 472
Body-linings for ladies' dresses.....	S. Moschcowitz	111, 236
Body-loop carriages.....	H. A. Luttgens	120, 079
Boiler.....	D. Sullivan	114, 222
Boiler.....	W. P. Skiffington	116, 104
Boiler, Agricultural.....	J. Murdock	120, 894
Boiler and engine for street-cars	W. Baxter	120, 930
Boiler and steamer, Combined	J. P. Bradford	119, 961
Boiler, Culinary	P. Boesen and M. Bedessem	113, 111
Boiler, Culinary	F. Meyer	115, 338
Boiler, Culinary	R. C. Whitehouse	117, 356
Boiler, Culinary	B. French	121, 770
Boiler, Farmers'	R. W. Thiekens and D. R. Sperry	113, 222
Boiler, Farmers'	W. M. Pryor and R. Ludwick	116, 733
Boiler, Farmers'	G. H. Buckley	117, 254
Boiler, Farmers'	G. Stevenson	118, 068
Boiler-feeder, Automatic.....	R. Berryman and R. N. Pratt	114, 255
Boiler-fire extinguisher.....	T. R. Sinclair	119, 190
Boiler-flues, Cleaning, by steam-jets	C. Dassenbrock	119, 581
Boiler for domestic purposes	F. Till	121, 973
Boiler for heating	J. G. Wilson	110, 884
Boiler for heating buildings.....	T. J. Myers	117, 448
Boiler for heating buildings.....	A. Gay	118, 799
Boiler for heating purposes	J. A. Maynard	112, 824
Boiler for preparation of paper-stock from wood	M. L. Keen	117, 427

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Boiler-furnace	Le G. Skinner	111, 580
Boiler-furnace draught-regulator	W. E. Pearson	114, 965
Boiler-heads, Machine for flanging	S. Lowen	117, 091
Boiler-heads, Method of flanging	W. B. Scaife	111, 478
Boiler, Locomotive	S. J. Hayes and E. T. Jeffery	116, 836
Boiler-riwet machine	C. B. Allen	117, 137
Boiler, Rotary	N. T. Edson	117, 159
Boiler, Sectional	B. F. Bee	116, 259
Boilers, steam, Blow-off pipe for	N. Sherman	117, 571
Boilers, steam-cylinders, fittings, &c., Manufacture of	G. W. Bollman	120, 235
Boilers, steam, Hand-hole cap for	W. W. Graham	110, 647
Boilers, steam, Surface-blow for	J. Gates	119, 597
Boilers, Surface blow-off pipe for	J. Perkins	113, 716
Boiler, Steam	A. Brase and L. Salladay	111, 036
Boiler, Steam	J. L. Frisbie	111, 191
Boiler, Steam	E. Evans	112, 323
Boiler, Steam	F. A. Woodson	114, 503
Boiler, Steam	F. W. Gordon	114, 666
Boiler, Steam	D. Sullivan	114, 876
Boiler, Steam	S. Tucker and J. R. Brownell	115, 993
Boiler, Steam	J. B. Atwater	116, 007
Boiler, Steam	J. F. Antisdell, G. W. Cronk, and J. W. Haviland	116, 255
Boiler, Steam	N. L. Blanchard	117, 251
Boiler, Steam	T. J. Lovegrove	118, 030
Boiler, Steam	G. Keen	118, 246
Boiler, Steam	W. R. Jones	118, 457
Boiler, Steam	E. H. Rümmele	119, 652
Boiler, Steam	R. L. Robertson, jr	120, 102
Boiler, Steam	J. F. Hayen	120, 516
Boiler, Steam	C. W. Sterick	120, 792
Boiler, Steam	J. Shand	121, 446
Boiler, Steam	J. H. Ansell	121, 979
Boiler, steam, Sectional	W. H. Cornell	113, 857
Boiler, steam, Sectional	J. McConn	117, 311
Boiler, steam, Sectional	J. H. Mills	121, 395
Boiler, steam, Sectional tubular	J. A. Maynard	119, 038
Boiler, steam, Tubular	J. Howard and E. T. Bousfield	113, 298
Boiler, steam, Tubular	C. A. Thompson	113, 466
Boiler, steam, Tubular	O. Hyde	118, 613
Boiler-tile support	W. Dillon	116, 693
Boiler-tube bushing, Steam	F. R. Hulbert	122, 252
Boiler-tube plug	T. La Blanc	111, 552
Boiler, Wash	T. U. Parker	112, 275
Boiler, Wash	J. McInnes	112, 368
Boiler, Wash	C. M. Powell	112, 627
Boiler, Wash	H. R. Robbins	112, 739
Boiler, Wash	W. B. White	112, 760
Boiler, Wash	J. H. Siebecke	113, 582
Boiler, Wash	W. A. Wells and L. P. Converse	113, 712
Boiler, Wash	O. L. Kenyon and E. B. Palmer	113, 774
Boiler, Wash	H. W. Pell	113, 920
Boiler, Wash	J. H. Garner	114, 431
Boiler, Wash	D. McCleary	114, 457
Boiler, Wash	H. W. Pell	115, 234
Boiler, Wash	M. L. Horton	115, 320
Boiler, Wash	C. W. Powell	115, 353
Boiler, Wash	I. Attyco	117, 720
Boiler, Wash	W. E. Kinnear	118, 024
Boiler, Wash	N. Parks and G. A. Hynds	118, 265
Boiler, Wash	B. T. Fellows	118, 442
Boiler, Wash	J. C. Tilton	119, 063
Boiler, Wash	H. and D. Weidley	119, 067
Boiler, Wash	J. W. and M. A. Bates	119, 109
Boiler, Wash	S. Bennett	119, 300
Boiler, Wash	G. J. Leach	119, 373
Boiler, Wash	E. M. Wright	119, 489
Boiler, Wash	W. J. Dodge	119, 510
Boiler, Wash	E. F. Lewis	119, 933
Boiler, Wash	A. S. Herr	121, 285
Boiler, Wash	M. C. Hubbard	121, 370
Boiler, Wash	J. W. Plouff	121, 812
Boiler, Wash	D. P. Souloff	122, 077
Bolster, Adjustable	G. Conch	120, 498
Bolster and pillow	T. S. Sperry	111, 270
Bolster-block and pier or abutment for bridges and roof-trusses	J. M. Wilson	112, 878
Bolster for bedsteads, Adjustable	J. Hofmann	114, 819
Bolsters for cutlery, Manufacture of	J. D. Frary	113, 648
Bolt	W. C. Coles	113, 264
Bolt and nut threading machine	F. S. Allen and C. F. Ritchel	121, 743

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Bolt-blanks, Apparatus for heating	J. B. Clark	116, 158
Bolt, Carriage	O. C. Burdick	119, 309
Bolt, Door	F. Engelbrecht	114, 782
Bolt, Door	J. B. Sargent	115, 645
Bolt, Door	L. J. Evans	120, 729
Bolt for locks	T. Kroner	119, 036
Bolt for railway-rails, Insulated	J. W. Cochran	110, 826
Bolt for safe-doors	J. Farrel and J. Weinmar	121, 711
Bolt-heading machine	T. Hull and N. Thomas	112, 243
Bolt-heading machine	J. R. Abbe	115, 555
Bolt-heading machine	G. Chapman	115, 702
Bolting-reel	S. Corsett and O. D. Lowe	116, 685
Bolting reel, Flour	F. B. Lewis	115, 331
Bolt-reel	B. C. White	111, 501
Bolt-machine	D. S. Coe	116, 270
Bolt, Safe	J. Weinmar	115, 001
Bolts and nuts, Machine for making	G. R. Postlethwaite	111, 082
Bolts and spikes, Machine for heading	R. Boeklen	112, 410
Bolts, Device for locking	A. McKenney	117, 657
Bolts, Device for locking	S. Vanstone	118, 075
Bolts, Keeper for	J. M. Mitchell	114, 841
Bolts, Machine for cutting screw-threads on	S. W. Putnam, jr.	111, 248
Bolts, Machine for cutting screw-threads on	H. Martin	112, 612
Bolts, Machine for heading	P. Eley	117, 527
Bolts, Machine for straightening	C. E. Hunter	111, 941
Bolts, Machine for threading	H. Martin	113, 072
Bolts, Machine for threading	S. H. Wright	119, 681
Bolts, Machine for threading	C. Schneider	120, 903
Bolts, Machine for upsetting	B. and J. A. Briscoe	112, 775
Bone-black, Apparatus for cooling	C. H. Senff	116, 361
Bone-black, Drying	P. Farley	113, 754
Bone-black, Manufacture of	C. Y. Beach	119, 005
Bones, horn-pith, &c., Obtaining gelatine from	N. B. Rice	114, 602
Bones, horns, hoofs, &c., Treating, for the manufacture of fertilizers.	W. B. Johns	111, 851
Book-binding	J. L. Rile	115, 896
Book-binding	D. M. Smyth	119, 894
Book-binding apparatus	I. Reynolds	116, 757
Book-binding machine	J. Glass	114, 286
Book-binding machine	R. G. Lowey	115, 621
Book-case for schools, &c	P. T. Vannice	110, 941
Book-cover protector	M. Thomson	117, 697
Book-holder and leaf-turner	A. McFall	117, 654
Book-holder, Portable	C. W. Sherwood	111, 577
Book-holder, Portable	C. C. Moore	112, 165
Book-holder, Portable	H. A. Oosterle	121, 191
Book-support	J. and A. and W. J. A. McCausland	111, 858
Book-support	S. M. Thompson	112, 984
Book-support	C. J. North	113, 866
Booms, Device for attaching, to masts	E. Rogers	115, 241
Booms, Outhaul-band for	G. Nevenger	121, 890
Boot	J. S. Lewis	112, 056
Boot and shoe	D. H. Campbell and E. Woodward	115, 566
Boot and shoe	F. Senn	116, 872
Boot and shoe	H. V. Gould	117, 168
Boot and shoe	M. Bray	121, 927
Boot and shoe	P. Ware, jr.	122, 085
Boot and shoe blacking	J. H. Patterson	119, 239
Boot and shoe channeling-machine	H. S. Vrooman	115, 994
Boot and shoe counters, Cutting	S. C. Phinney	120, 998
Boot and shoe fastening	F. D. Ford	111, 625
Boot and shoe heel	M. Bray	118, 839
Boot and shoe heel	G. F. Fling	119, 021
Boot and shoe heel burnishing-machine	G. C. Hawkins and A. G. Mead	113, 658
Boot and shoe heel polisher	C. H. Helms	119, 707
Boot and shoe heels and sole edges, Machine for trimming.	R. C. Lambert	115, 219
Boot and shoe heels, Enameling	C. H. Orcutt	114, 470
Boot and shoe heels, Machine for burnishing	V. K. Spear	115, 651
Boot and shoe heels, Machine for making	C. W. Glidden	112, 702
Boot and shoe heels, Machine for polishing	C. H. Helms	117, 283
Boot and shoe heels, Machine for randing	H. F. Packard	118, 263
Boot and shoe heels, soles, &c., Composition	F. Marquard	115, 075
Boot and shoe heel trimming and burnishing machine	T. K. Reed	116, 867
Boot and shoe makers, Edge-plane for	A. J. Parker	121, 465
Boot and shoe, Moccasin	P. Kelleher and J. C. Randlett	122, 030
Boot and shoe peg attachment	D. H. Campbell and E. Woodward	115, 567
Boot and shoe pegs, Machine for making wire for	W. Wickersham	118, 318
Boot and shoe sole	B. D. Godfrey	111, 448
Boot and shoe soles, Apparatus for making	L. Coté	120, 628
Boot and shoe soles, Mode of cutting	S. J. Shaw	121, 969

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Boot and shoe stretcher	E. R. Bardin	115, 808
Boot and shoe tap	J. C. Hancock and J. C. and E. P. Richardsonson.	116, 439
Boot and shoe tree	T. R. Evans	119, 131
Boot-crimper	W. Polsgrove	111, 245
Boot-crimper	H. Henley	113, 430
Boot-crimper	E. Powell	116, 750
Boot-crimpers' rub-stick	A. J. F. Howard	117, 288
Boot for horses' hoofs	R. Williams	119, 906
Boot-heel, Reversible	F. Richardson and F. Hacker	112, 962
Boot-heel, Reversible	F. Richardson and F. Hacker	116, 758
Boot-heel treads, Machine for leveling	A. B. Keith	114, 949
Boot-pattern	E. Shoppell	119, 538
Boot, Rubber	C. E. Lins	118, 138
Boot, Rubber	C. S. Foster and O. Saylor	118, 444
Boots, &c., Machine for piercing side-seams of	W. May	115, 493
Boots and shoes	F. J. Burcham	111, 639
Boots and shoes	W. F. Prusha and E. L. Wales	114, 340
Boots and shoes	A. O. Bourn	115, 422
Boots and shoes, Apparatus for crimping the stiffenings of	J. W. Hatch	117, 627
Boots and shoes, Burnisher for	R. Chauncey	112, 548
Boots and shoes, Channeling soles for	L. R. Blake	116, 921
Boots and shoes, Device for cutting soles for	A. M. Howe	110, 762
Boots and shoes, Feather-edging and channeling machine for	R. Blake	116, 402
Boots and shoes, Hand-burnisher for	J. G. Ross	116, 491
Boots and shoes, Heel for	H. H. Bigelow	116, 400
Boots and shoes, Heel for	A. O. Crane	118, 203
Boots and shoes, Heel for	C. A. Read	119, 407
Boots and shoes, Heel for	A. T. Perrine	119, 473
Boots and shoes, Heel for	C. H. Eggleston	122, 112
Boots and shoes, Heel of	H. S. Smythe	111, 986
Boots and shoes, Heel of	A. O. Crane	115, 581
Boots and shoes, Heel-tap for	A. Warner	110, 701
Boots and shoes, Inner-sole for	C. P. Johnson	113, 773
Boots and shoes, Inner-sole for	J. Luttenchlager	118, 733
Boots and shoes, Die for making metallic shanks for	H. F. Hidden	118, 660
Boots and shoes, Mechanism for polishing the heels of	C. H. Helms	115, 853
Boots and shoes, Machine for blacking	N. Eisenmann	121, 343
Boots and shoes, Machine for channeling and beveling soles for	J. G. Ross	113, 350
Boots and shoes, Machine for channeling the soles of	L. R. Blake	117, 856
Boots and shoes, Machine for sewing	C. Goodyear, jr.	111, 197
Boots and shoes, Machine for sewing	C. Goodyear, jr.	112, 802
Boots and shoes, Machine for skiving the soles of	H. S. Vrooman	114, 994
Boots and shoes, Machine for trimming the soles of	D. McLaughlin	113, 546
Boots and shoes, Metallic heel for	A. L. Holbrook	115, 206
Boots and shoes, Metallic heel for	E. P. Bray	119, 691
Boots and shoes, Process for lasting	W. Wickersham	118, 319
Boots and shoes, rubber, Tap-sole for	A. O. Bourn and I. F. Williams	118, 099
Boots and shoes, Sewing	M. J. Stein	113, 593
Boots and shoes, Shank for	G. Goodyear	118, 851
Boots and shoes, Shank and toe laster for	C. L. Graves	118, 527
Boots and shoes, Shank-laster for	O. R. Clark	119, 741
Boots and shoes, Shank-piece for	J. M. Watson	111, 022
Boots and shoes, Shield for	O. Collier	118, 201
Boots and shoes, Sole of	A. A. Moss	115, 631
Boot and shoe sole	C. Goodyear, jr., and J. Da Silva	113, 420
Boots and shoes, Welt and rand for	H. F. Packard	116, 744
Boots and shoes, Welt-trimmer for	J. H. Allen	117, 138
Boots, Balmoral or laced	L. R. Stockbridge	114, 724
Boot-stretcher	I. M. Myers	111, 137
Boot-stretcher	J. Hoffman	117, 777
Boquet-holder	J. C. Reed	118, 486
Bordering and drain tile, Combined	C. Biehl	113, 007
Boring and mortising blind-slats, Machine for	T. Flesher	121, 093
Boring and mortising machine	J. Peters	111, 472
Boring and mortising, Machine for	R. L. Nelson	114, 183
Boring-bar for facing the ends of cylinders	J. Flower	122, 243
Boring-bits, Extension-shank for	W. S. Patten	116, 090
Boring-machine	J. H. Pardieck	112, 372
Boring-machine	R. Little	114, 953
Boring-machine	W. P. Powers	117, 567
Boring-machine	G. P. Cluff	120, 716
Boring-machine	F. S. Allen and C. F. Ritchell	121, 074
Bottle and box opener	G. J. Hill	118, 453
Bottle-capping machine	W. H. Sperling	116, 107
Bottled mineral water, Manufacture of	T. Maloney	112, 610
Bottle-fastener	G. Otto and G. W. Bauer	116, 742
Bottle-fastening	E. D. Weatherbee	113, 603

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Bottle-fastening.....	W. S. M. Beal.....	120, 363
Bottle for tooth-powder, Toilet.....	W. A. Spalding.....	118, 163
Bottle-opener.....	C. B. Trimble.....	119, 802
Bottles, Device for securing corks in.....	S. L. Gouverneur.....	111, 637
Bottle, Siphon.....	C. Glover.....	119, 028
Bottles, Machine for corking.....	D. Müller.....	113, 326
Bottles, Machine for tapping.....	P. I. Perrin and J. L. Hewes.....	112, 626
Bottle-stopper.....	F. Schlich.....	112, 185
Bottle-stopper.....	L. Dovell.....	113, 751
Bottle-stopper.....	J. Park.....	116, 347
Bottle-stopper.....	G. C. Lowe.....	120, 821
Bottle-stopper.....	W. Wright.....	120, 923
Bottle-wrapper.....	W. A. Hinman.....	121, 718
Bottle-washing machine.....	C. Euler.....	118, 917
Bottom for sheet-metal ware.....	H. W. Shepard.....	114, 481
Box.....	H. Manneck.....	111, 463
Box.....	J. Cohn.....	121, 156
Box, Blacking.....	E. M. Gates.....	118, 924
Box, Blacking.....	J. Van Santvoord.....	120, 554
Box, Blacking.....	T. R. Sinclair.....	120, 907
Box, Blacking.....	A. M. Utley.....	121, 069
Box, Cheese.....	J. J. Hecox.....	120, 741
Box, Cigar.....	T. A. Wiley.....	116, 782
Box, Coal.....	T. L. Bozart, jr.....	111, 171
Box, Coal and wood.....	J. Mallin.....	114, 312
Box, Composition.....	T. B. Gunning.....	119, 603
Box, Egg-packing.....	N. L. Janney.....	119, 613
Boxes and packages, Implement for handling.....	C. Hoffman.....	121, 873
Boxes, &c., Prop for holding up the lids of.....	A. Davis and T. Parsons.....	118, 558
Boxes in carriage-hubs, Apparatus for setting.....	C. Weidig.....	122, 295
Boxes, Machine for making.....	E. G. Alden.....	113, 238
Box, Feed.....	W. S. Shaw and M. B. Gould.....	120, 906
Box, Folding.....	N. and J. Erpelding.....	115, 183
Box, Folding.....	C. C. Moore.....	115, 764
Box for carriage-wheels.....	W. A. Clark.....	121, 706
Box for chalk-lines.....	E. Braley.....	117, 375
Box for packing and transporting sheet-metal cans.....	C. E. Russ.....	111, 684
Box for shoe-blackening.....	G. H. Wetjen.....	118, 995
Box, Fruit.....	C. W. Weston.....	119, 806
Box, Fruit.....	J. H. Marvil.....	119, 872
Box, Fruit.....	S. W. Phelps.....	121, 412
Box, Fruit.....	C. A. Blair.....	121, 926
Box, Fruit-packing.....	E. D. Lewelling.....	119, 776
Box, Fur.....	H. Braunhold.....	116, 145
Box, Fur.....	S. C. Nichols.....	119, 168
Box, Fur-set.....	E. H. Smith.....	119, 095
Box, Fur-set.....	B. F. Porter.....	120, 897
Box, Lard and butter.....	W. Pratt.....	111, 970
Box, Laundry.....	M. A. H. Saurman.....	115, 109
Box, Letter.....	J. A. Ryan.....	118, 057
Box, Lunch.....	D. Miller.....	110, 991
Box, Lunch.....	D. Troxell.....	114, 370
Box, Moth-proof.....	R. M. Seldis.....	120, 904
Box, Muff and collar.....	H. Manneck.....	118, 866
Box-opener.....	T. B. Henkle.....	111, 207
Box-opener.....	R. H. Chinn, G. Hall, and J. J. Fitch.....	122, 106
Box or bearing, Self-centering.....	M. C. Bullock.....	113, 739
Box, Paper.....	J. W. Wilcox.....	112, 306
Box, Paper.....	B. J. Magee and J. F. Wall.....	113, 319
Box, Paper.....	H. Matier.....	114, 582
Box, Paper.....	G. L. Jaeger.....	117, 423
Box, Paper-collar.....	L. Churchill.....	111, 514
Box, Pasteboard.....	W. Pratt.....	112, 015
Box, Pepper and spice.....	B. Morahan.....	121, 399
Box, Powder.....	B. F. Brown.....	117, 510
Box, Stereoscope.....	W. W. Kohl.....	114, 829
Box, Tobacco-cutting.....	W. T. Farre.....	117, 269
Box, Tree.....	J. Gibson, jr.....	118, 925
Brace, Bit and drill.....	G. G. Parker and W. P. Dodge.....	112, 842
Brace for carriage and other springs.....	L. C. Miller.....	111, 229
Brace for carriage-springs.....	D. W. Norris.....	113, 915
Brace, Ladies' supporting.....	M. Harris.....	112, 244
Bracelet.....	J. H. Sprague.....	119, 540
Bracelet-fastening.....	B. Ranger.....	120, 535
Bracelets, Guard-chain for.....	G. D. Stevens.....	111, 489
Brace or suspender.....	M. Harris.....	120, 523
Bracket.....	J. M. Whiting.....	115, 550
Bracket.....	G. W. Peirce.....	116, 862
Bracket.....	J. E. Chesley.....	118, 433
Bracket and towel-rack combined.....	G. W. Peirce.....	120, 665
Bracket, Bird-cage.....	A. D. Judd.....	114, 948

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Bracket, Floral	E. M. Stigale	112, 748
Bracket for roofing, Scaffold	J. W. Talmadge	114, 365
Bracket for warp-creels	N. B. Peck	116, 482
Bracket for water-conductor	L. B. Hill	116, 309
Bracket, Roof	D. Fisher	118, 001
Bracket, Roofing	J. W. Caldwell	112, 898
Bracket, Roofing	J. H. Look, jr.	116, 845
Bracket, Roofing	W. Hancock	117, 624
Brackets, shelves, &c., Construction of	N. G. Burleigh	119, 116
Bracket, Shingling and slating	L. W. Fifield	117, 875
Bracket, Washstand	A. Cary	118, 341
Braiding-machine	J. McCahey and S. B. Salisbury	112, 946
Brake and starter, Car	E. Bonneval	112, 534
Brake and starter, Car	J. Caradis	112, 954
Brake and starter, Car	J. A. Cody	114, 529
Brake and starter, Car	W. M. Starr	120, 341
Brake, Buggy	I. L. Myers	113, 193
Brake, Car	C. A. Smith	114, 983
Brake, Car	A. W. Filer and L. T. Hatfield	118, 443
Brake, Car	J. F. Brode	121, 150
Brake, car, Automatic	J. R. Crabill	116, 814
Brake, car, Electro-magnetic	H. S. Daggett	116, 818
Brake, Carriage	A. Wnuck	112, 665
Brake, car, Steam-actuated	J. T. Bassett	119, 913
Brake, Curtain	T. S. Bailie and G. H. Maurer	110, 726
Brake, Elevator	T. Thorn	119, 800
Brake, Flax	J. C. Kurtz	116, 328
Brake, Flax	M. B. Southwick	117, 342
Brake for bending sheet-metal	F. Yaesche	118, 090
Brake for machinery	R. D. Napier	120, 527
Brake for machinery, Friction	J. C. Clapp	118, 107
Brake for railway-cars	C. W. Tierney	111, 584
Brake for railway-cars	L. W. Tracy	112, 865
Brake for railway-cars	J. Paradis	120, 316
Brake for railway-cars, Vacuum	R. J. Wilson	120, 922
Brake for vehicles	G. W. Loomis	118, 465
Brake for vehicles	J. Boyer	118, 583
Brake for vehicles	F. Fairbanks	118, 598
Brake for vehicles	H. B. Lee	119, 932
Brake for wagons	F. M. Kelley	119, 033
Brake, Omnibus	H. Bothe	117, 972
Brake or clutch, Friction	A. G. Waldo	115, 792
Brake, Railroad-car	J. C. Gove	113, 290
Brake, Railway-car	J. E. Weaver	111, 591
Brake, Railway-car	L. Hill and S. D. Tripp	112, 456
Brake, Railway-car	L. A. Russell	112, 499
Brake, Railway-car	C. B. Eaton	116, 169
Brake, Railway-car	J. W. McGlashan	117, 190
Brake, Railway-car	D. Arndt and D. C. Washington	119, 103
Brake, Railway-car	M. F. Daughtrey	119, 582
Brake, Railway-car	A. Wellshmidt	120, 603
Brake, Railway-car	W. F. H. Smith	121, 013
Brake, Railway-car	I. Townsend	121, 140
Brake, Railway-car	C. H. Lathrop	122, 264
Brake, Sled	J. E. Coutant	118, 202
Brake, Sleigh	E. J. Cooper	111, 109
Brake, Sleigh	G. C. Fuller	114, 663
Brake, Sleigh	J. W. Scott	114, 976
Brakes of railroad cars, Mode of operating	S. N. Goodale	120, 429
Brake, Wagon	A. Vanderhyden	110, 673
Brake, Wagon	R. Hurd	112, 252
Brake, Wagon	R. H. Dement	113, 636
Brake, Wagon	R. C. Shockley	114, 054
Brake, Wagon	S. R. Bolton	114, 100
Brake, Wagon	N. Frey	114, 796
Brake, Wagon	J. J. Rose	114, 973
Brake, Wagon	H. Walmer	114, 995
Brake, Wagon	W. I. Spore	115, 130
Brake, Wagon	F. W. Schultz	116, 505
Brake, Wagon	J. J. Adgate	116, 910
Brake, Wagon	D. Healy	116, 957
Brake, Wagon	W. Bryant	117, 147
Brake, Wagon	W. T. Hamilton	118, 530
Brake, Wagon	C. M. Lufkin	119, 524
Brake, Wagon	H. Sager	119, 635
Brake, Wagon	G. M. Bennett	119, 736
Brake, Wagon	J. A. Gerhart	121, 772
Brake, Wagon and cart	J. Veasey	118, 409
Bran-duster	J. Damp	117, 990
Bran-duster and flour-bolt	J. H. Jones	120, 198
Bread-board and dough-tray	B. Fulton	119, 926

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Bread-slicer.....	J. W. Currier.....	114, 930
Breaking-plows, Sulky-attachment for.....	A. H. Allison.....	111, 799
Breast-collar for horses.....	J. Nellis.....	115, 346
Breast-pin.....	A. Weiller.....	121, 440
Breast-pin fastener.....	J. A. Lehman.....	119, 860
Breast-pump and nursing-bottle, Combined.....	O. H. Needham.....	119, 044
Brewing, &c., Manufacture of inverse sugar for.....	W. Garton.....	118, 524
Brick and tile machine.....	W. Hutchinson.....	113, 300
Brick, Hollow.....	G. H. Johnson.....	110, 764
Brick-lifter.....	K. J. Rugg.....	113, 799
Brick-machine.....	E. C. Hubbard.....	111, 210
Brick-machine.....	B. M. and E. R. Gard.....	111, 629
Brick-machine.....	E. Hallett.....	113, 514
Brick-machine.....	D. J. Hunter.....	114, 011
Brick-machine.....	J. V. Tompkins.....	114, 884
Brick-machine.....	J. L. Kucker.....	115, 218
Brick-machine.....	A. Morand.....	116, 341
Brick-machine.....	J. F. M. Pollock.....	116, 484
Brick-machine.....	F. L. Hall.....	116, 587
Brick-machine.....	A. Ferguson, D. Ralston, and G. Hil-dreth.....	116, 942
Brick-machine.....	A. F. Mitchell.....	117, 097
Brick-machine.....	W. H. and P. L. Machen, jr.....	117, 551
Brick-machine.....	W. G. White.....	117, 842
Brick-machine.....	F. Alsip.....	118, 504
Brick-machine.....	A. Anderson.....	118, 777
Brick-machine.....	J. Cook.....	121, 450
Brick-machine.....	J. Treadway.....	121, 825
Brick-machine.....	D. Hess.....	121, 871
Brick-machine.....	F. Beaujen.....	122, 214
Bricks and tiles, Machine for making.....	I. C. Bryant.....	113, 847
Bricks, Compound for enameling.....	D. W. Clark.....	111, 318
Bricks, Mode of making.....	F. Lambert.....	111, 066
Brick, wood, and other surfaces on walls, &c., Coating.....	E. E. Alvord.....	111, 602
Bridge.....	F. Dieckmann.....	113, 030
Bridge.....	C. B. Sreeves.....	114, 363
Bridge.....	T. C. Bontel.....	114, 401
Bridge.....	J. Seebold.....	114, 479
Bridge.....	G. C. Morgan.....	118, 258
Bridge.....	L. Kirkup.....	120, 232
Bridge.....	O. H. Perry and W. H. Allen.....	120, 319
Bridge.....	J. B. Tracy.....	121, 556
Bridge.....	C. Pfeifer.....	121, 894
Bridge-cables, Machine for laying.....	J. Gray.....	122, 247
Bridge for railway-cars, Safety.....	E. Sturgeon.....	118, 167
Bridge for supporting shaft-drilling machines.....	J. P. Griscom and J. Fritz.....	111, 641
Bridge, Hose.....	P. Daily.....	112, 427
Bridge, Iron-arch.....	L. Kittenger.....	119, 466
Bridges, Arched truss for.....	P. L. Weimer.....	118, 566
Bridges, Iron abutment for.....	J. S. Goshorn.....	111, 636
Bridges, iron and steel, Connection.....	T. C. Clarke.....	121, 848
Bridges, iron and steel, Connection for.....	T. C. Clarke and A. Bonzano.....	117, 047
Bridges, iron and steel, Connection for.....	T. C. Clarke and A. Bonzano.....	117, 048
Bridges, iron and steel, Connection for.....	T. C. Clarke and A. Bonzano.....	117, 049
Bridges, iron and steel, Connection for.....	T. C. Clarke and A. Bonzano.....	117, 050
Bridge, Truss.....	J. A. McKay.....	111, 662
Bridge, Truss.....	T. W. Pratt.....	114, 039
Bridge-truss.....	A. Fink.....	116, 787
Bridge, Wooden-truss.....	J. Burkee.....	117, 042
Bridle-bit, Combination-lever.....	H. M. Cornell.....	120, 860
Bridle-blinder for horses.....	J. B. Low.....	121, 528
Bridle, Safety.....	J. Weatherhead.....	112, 398
Brine and other liquids, Apparatus for evaporating.....	L. R. Cornell.....	117, 052
Brine and other liquids, Apparatus for evaporating and concentrating.....	B. G. Leckie.....	114, 831
Brine and other liquids, Process and apparatus for purifying.....	G. Clark.....	115, 573
Brine, Apparatus for evaporating.....	S. D. Gilson.....	119, 136
Brine for manufacture of salt, Purifying.....	L. B. Cornell.....	121, 994
Broiler.....	M. T. Hynes.....	110, 763
Broiler.....	L. H. Colborne and D. H. Lowe.....	111, 516
Broiler.....	E. B. Phelps and J. P. McLean.....	112, 846
Broiler.....	W. T. Howard.....	113, 886
Broiler.....	D. E. Roe.....	115, 984
Broiler.....	O. J. Smith.....	119, 892
Broiler.....	B. G. Fitzhugh.....	119, 974
Broiler.....	J. C. Nobles.....	120, 768
Broiler.....	C. Walsh.....	121, 917
Bronchial and lung diseases, Medical compound for treating.....	S. W. Helm.....	112, 595
Bromine, Apparatus for the manufacture of.....	J. J. Juhler.....	110, 662

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Bronzing-machine	E. F. Benton	116, 918
Bronzing-machine	E. F. Benton	119, 498
Bronzing-machine	J. H. Nevins	119, 637
Bronzing-machine	E. P. Benton	122, 216
Bronzing, Machine for	I. L. G. Rice	111, 973
Broom	C. L. Reid	112, 960
Broom	T. E. C. Brinly	113, 845
Broom	W. E. S. Whitman	116, 126
Broom	W. A. Middleton	117, 192
Broom	A. Willis	117, 844
Broom	E. A. Anderson	117, 959
Broom	R. E. Copson	117, 986
Broom	W. C. Spellman	120, 791
Broom	T. R. Evans	121, 501
Broom and mop holder	G. B. Isham	120, 818
Broom-bridle	J. H. Subers and J. H. Troup	120, 122
Broom-head	C. Fiscus	114, 120
Broom-head	G. Smith	118, 493
Broom-head	C. Blom, jr., and J. Aling	121, 578
Broom-holder	Z. Howe	110, 917
Broom-holder	C. T. Beardsley	116, 140
Brooms and brushes, Tying	J. H. Anderson	111, 801
Brooms and brushes, Tying	J. H. Anderson	113, 000
Brooms, brushes, &c., Handle-fastening for	E. F. Dunaway	115, 040
Brooms, Flanged collar for	H. A. Lee	119, 775
Brooms, Manufacture of	E. P. Marble	111, 464
Brooms, Stand for	E. A. Harris	118, 451
Broom-tying machine	J. W. Congdon	118, 845
Brush	J. Ames	112, 404
Brush	D. L. Keeler	112, 718
Brush	J. L. Whiting	116, 382
Brush	J. L. Whiting	118, 661
Brush	J. Minetree	118, 871
Brush	D. W. Laphapham	120, 523
Brush	J. A. Grant	120, 964
Brush	H. A. Harvey	121, 050
Brush	J. Michales, jr., and R. J. Combs	122, 186
Brush	G. and F. Pirrung	121, 811
Brush and broom holder	S. G. Groff	121, 458
Brush, &c., for the pocket	P. Henrichs	116, 185
Brush and scraper for sinks	J. H. Osgood	120, 090
Brush, Bathting	J. Marshall	111, 955
Brush, Blacking	B. F. Averill	116, 794
Brush, Blacking	J. R. Howard	118, 015
Brush, Blacking	C. Brintzinghoffer	119, 815
Brush, Blacking	G. R. Owen	120, 663
Brush, Boiler-flue	B. M. Spencer	112, 645
Brush, broom, and mop holder	C. L. W. Baker	113, 244
Brush, Dusting	T. G. Porter	117, 456
Brushes, Machinery for manufacturing	G. Willett	119, 439
Brushes, Machinery for manufacturing	G. Willett	119, 440
Brush, Fly	D. Shankland and E. B. Hopkinson	113, 581
Brush, fly, Automatic	W. H. Chipley	121, 335
Brush, Folding	P. Henrichs	116, 184
Brush, Foot	J. W. Osborn	114, 847
Brush for cleaning tumblers	A. Fischer	117, 614
Brush, Fountain	Z. Poitras	113, 923
Brush-handle	C. Brintzinghoffer and G. Eckert	120, 486
Brush, Hat	R. D. Radcliffe	112, 492
Brush, Lather	W. H. Miles, jr.	120, 390
Brush-making machine	J. Pickering	120, 164
Brush, Paint	W. B. Burtnett	110, 628
Brush, Paint	F. S. Shearer	112, 387
Brush, Paint	J. Ames, jr.	114, 086
Brush, Scrubbing	W. Devines	116, 030
Brush, Scrubbing	P. O'Brian	116, 346
Brush, Scrubbing	S. A. Gibson and J. B. De Haas	117, 167
Brush, Scrubbing	J. N. Valley and J. A. Stetson, jr.	120, 350
Brush, Shoe	G. R. Owen	118, 638
Brussels and other pile carpets, Weaving	J. P. Buzzell	118, 338
Bucket, Covered	F. D. Kellogg and G. N. Ives	121, 288
Bucket, Dumping	F. B. Colton	122, 227
Bucket for chain-pumps	W. C. Barker	116, 138
Bucket for chain-pumps	J. S. Wilcox	119, 679
Bucket, Hoisting	E. J. Hulbert and A. N. N. Aubin	120, 522
Buckle	D. McMillan and A. Rowan	122, 947
Buckle	J. H. Martin	113, 902
Buckle	E. A. and D. L. Smith	114, 214
Buckle	J. H. Morris	114, 461
Buckle	J. F. Martin	114, 580
Buckle	H. S. Wilkin	114, 631

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Buckle.....	J. Peckham	115, 513
Buckle.....	E. A. and D. L. Smith	115, 535
Buckle.....	G. F. Stephens	115, 654
Buckle.....	F. A. Ross and S. De La Mater	115, 985
Buckle.....	D. Webber	116, 124
Buckle.....	W. Yost	117, 232
Buckle.....	G. Havell	117, 882
Buckle.....	E. F. Driggs	120, 187
Buckle.....	J. Buche	121, 325
Buckle and loop.....	S. C. Talcott	117, 347
Buckle and ring, Halter	L. E. Jones and T. M. Barber	112, 048
Buckle for suspenders	A. Shenfield	112, 857
Buckle, Harness	T. Crakes	116, 028
Buckle, Harness	O. Brown	120, 413
Buckle, Harness-tug	C. S. Abeel	118, 326
Buckle, Trace	M. H. Densmore	113, 406
Buckle, Trace	G. Oldham, jr	114, 184
Buckle, Trace	W. C. Riley	114, 201
Buckle, Trace	A. H. Cole	114, 530
Buckle, Trace	I. Clark	117, 742
Buckle, Trace	D. K. Peacock	117, 923
Buckle, Trace	W. W. Kittleman	118, 724
Buckle, Trace	A. Worster	120, 561
Buck-saw frame	J. G. Baker	112, 007
Buck-saw frame	J. C. Dietrich	113, 639
Buck-saw frame	L. Hancock	114, 554
Buck-saw frame	E. M. Madden and S. D. Roberts	116, 490
Buck-saw frame	W. Hankin	118, 233
Buck-saw frame	W. Clemson	119, 696
Buck-saw frame	W. Hankin	120, 157
Buckwheat-refiner.....	D. D. Brewster	114, 103
Buffer-head and draw-bar for railway-cars	J. T. Wilson	113, 608
Buggies, Running-gear for	E. P. Carter	119, 819
Buggy	J. R. Gilman	114, 000
Buggy-reach	J. C. Hilsabeck	120, 644
Buggy-top, Shifting	B. L. Benson	116, 540
Buggy-tops, Machine for setting	J. B. Weller	119, 728
Building-block	N. Boeh	115, 685
Building-block, Hollow	M. R. Pierce	121, 193
Building, Portable	F. M. Bain	117, 721
Buildings, Apparatus for warming, with steam.....	J. H. Blessing	121, 748
Buildings, Artificial stone for.....	J. J. Johnston	114, 946
Buildings, Composition for coating the outside of.....	J. Müller	119, 167
Buildings, Construction of	T. W. H. Moseley	118, 382
Buildings, Hot-water apparatus for heating.....	A. Marriott	118, 953
Buildings, Manufacture of straw-board for the construction of.....	J. M. Cobb	111, 611
Buildings with steam, Apparatus for warming	J. H. Blessing	121, 748
Bulletin-board	A. M. Ernsberger	121, 347
Bullet-patch	A. C. Hobbs	113, 431
Bung	J. Kirby	111, 352
Bung	U. Fountain, jr	121, 607
Bung and bung-inserter.....	D. B. Rickey	119, 094
Bung-attachment to barrels	A. Wieners	121, 834
Bung-borer	W. A. Ives	115, 211
Bung-extractor.....	J. Kirby	111, 351
Bung-inserter	J. Gillies	122, 006
Bung-spout	J. Marvin and W. T. Hulse	118, 545
Bureau, Folding	J. E. Lawrence and J. S. Young	122, 179
Burglar proof curtain, Electro-magnetic	E. Holmes and H. C. Roome	120, 875
Burial-apparatus	W. H. McGavran	120, 657
Burial-case.....	I. Lorde	110, 984
Burial-case.....	P. H. Griffin	111, 117
Burial-case.....	F. B. Shearer	111, 263
Burial-case.....	I. C. Shuler	115, 116
Burial-case, Apparatus for warming	J. Hackett	121, 616
Burial-case, Composition	F. W. Brown	113, 138
Burial-cases, Device for making the ends of	E. T. Smith and J. S. Winston	115, 536
Burial-casket	E. T. Smith and J. S. Winston	111, 393
Burial-casket	J. O. Moore	117, 800
Burial-casket	J. Scot	120, 171
Burial-casket handle	C. Strong	111, 271
Burner, Argand-lamp	H. W. Hayden	115, 955
Burner, Argand-lamp	T. H. Mott	116, 984
Burner, Candle	J. A. Pease	119, 785
Burner, Gas	A. E. Dupas	111, 825
Burner, Gas	M. Rosenwax	112, 637
Burner, Gas	H. B. Meyer	115, 566
Burner, Gas	W. B. Stofer	119, 480
Burner, Gas	T. Clough	120, 715
Burner, gas, Revolving.....	F. McLewee	113, 906

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Burner, gas, Self-closing	G. E. Smith	119, 478
Burner, Incense	E. W. Hastings	117, 281
Burner, incense, Illuminating	E. W. Hastings	118, 126
Burner, Lamp	G. P. Fuller	110, 846
Burner, Lamp	E. J. Hale	114, 805
Burner, Lamp	R. S. Merrill	111, 074
Burner, Lamp	A. Taplin	111, 274
Burner, Lamp	F. A. Taber	111, 400
Burner, Lamp	W. C. McGill	111, 960
Burner, Lamp	G. L. Smith	113, 104
Burner, Lamp	C. B. Mann	113, 183
Burner, Lamp	J. Trent	113, 472
Burner, Lamp	L. J. Atwood	113, 833
Burner, Lamp	W. H. Gray	113, 876
Burner, Lamp	H. W. Hayden	115, 315
Burner, Lamp	H. W. Hayden	115, 466
Burner, Lamp	E. K. Haynes	115, 608
Burner, Lamp	S. B. Platt	115, 890
Burner, Lamp	W. H. Gray and S. Ross	115, 953
Burner, Lamp	S. W. Fowler	116, 292
Burner, Lamp	T. F. Halley and J. F. Livingstone	117, 412
Burner, Lamp	G. E. Brush	118, 193
Burner, Lamp	A. Taplin	119, 061
Burner, Lamp	T. Hipwell	120, 383
Burner, Lamp	S. Ross	120, 214
Burner, Lamp	R. S. Merrill	121, 394
Burner, Lamp	F. S. Robinson	121, 550
Burner, Vapor	R. W. Park	111, 471
Burner, Vapor	T. Moore and J. O'Donald	111, 666
Burner, Vapor	J. S. Wood	111, 893
Burner, Vapor	J. Shay	112, 291
Burner, Vapor	R. W. Park	112, 373
Burner, Vapor	W. H. Lawrence	113, 178
Burner, Vapor	W. E. Bartlett	115, 015
Burner, Vapor	A. F. Noble	115, 089
Burner, Vapor	T. S. Gates and A. H. Fritchey	115, 189
Burner, Vapor	G. T. Parry	115, 350
Burner, Vapor	T. Ward and H. C. Hunt	115, 398
Burner, Vapor	G. H. Wilson	116, 385
Burner, Vapor	M. B. Dyot	116, 573
Burner, Vapor	C. B. Brown	118, 192
Burner, Vapor	I. Whitehouse	118, 314
Burner, Vapor	T. S. Gates and A. H. Fritchey	119, 839
Burner, Vapor	S. D. Baldwin	120, 613
Burner, Vapor	J. Cook	120, 627
Burner, Vapor	T. P. Doane	121, 497
Burner, Vapor	T. J. Barron	112, 206
Burning hydrocarbon liquid for light	J. Lacey and G. B. Cornell	118, 617
Bush and wrench for bungs, Combined	H. W. Vitt	118, 077
Bushes for mill-spindles	I. W. Birdseye	120, 616
Bustle	G. V. Pierce	115, 235
Bustle, Extension	S. Davis	116, 692
Butteris	A. Robertson	114, 714
Butter-pail, &c.	L. Beemer	114, 516
Butter-tray, Portable	J. Gilberts	122, 166
Butter-tub	W. Marsh	111, 758
Butter-tub, &c.	P. G. Woodard	115, 144
Butter-worker	W. Weaver	117, 022
Butter-worker	L. L. Kellogg	117, 428
Butter-worker	P. P. Meredith	119, 385
Butter-worker	G. S. Coleman	119, 575
Butter-worker	E. L. Walker	121, 559
Butt-hinge plate	J. J. and L. Crooke	113, 501
Button	G. A. Schultz	113, 577
Button	E. A. Cobb	117, 150
Button	G. W. Phillips	117, 564
Button	C. M. Platt	121, 000
Button-fastener	A. M. Richmond	114, 200
Button for doors	G. F. Beardsley	121, 271
Button-hole clamp and guide	L. Reding	113, 093
Button-hole guide-plate	A. W. Webster	116, 378
Button-holes, Machine for sewing or working	C. E. Robinson	110, 790
Button or stud	C. A. Newton	117, 916
Buttons, Machine for attaching	W. S. Platt and G. J. Capewell	118, 743
Buttons to textile fabrics, Eyelets for attaching	C. M. Platt	118, 640
C.		
Cabinet, Earth	W. H. Bliss	118, 681
Cake-mixer	T. Holmes	118, 243
Cake-stirrer	S. M. Clark	121, 336
Calculating-machine	R. Teasdale	121, 687

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Calendar	W. McAdams	119, 381
Calf-weaner	T. A. R. Keech	122, 119
Caliper	W. P. Hopkins	110, 657
Calipers and polishing-tool, Jewelers', combined	F. E. Allen	112, 203
Calks, Machine for sharpening	G. W. Lane	115, 068
Calks of horseshoes, Machine for turning	A. T. Boon, D. M. Osborn, and G. Geer	117, 508
Camera and developing-box, Combination	E. C. Ratzell	112, 380
Camera-boxes, Support for	O. Ackerman	114, 082
Camera, Photographic	W. A. Leggo	113, 067
Camera, Photographic	J. and J. Stock	115, 655
Camera, Photographic	G. W. Parker	117, 106
Camera, Photographic	J. and J. Stock	121, 553
Camera-stand	A. R. Rihfield	113, 267
Camera-stand	C. H. Snively	120, 790
Cam for quartz-mills	O. P. Hart	111, 643
Camp-grate, Portable	L. D. Gavitt	110, 967
Canal	W. H. Doane	118, 699
Canal-boat	J. English	121, 346
Canal-boats, Propeller for	G. G. Wyland and T. M. Rathmell	114, 382
Canal-boats, Propelling	H. B. Meech	112, 369
Canal-boats, Propelling	W. W. Verdin	113, 951
Canal-boats, Propulsion of	T. Main	111, 462
Canal-boats, Propulsion of	J. L. Hornig	114, 561
Canal-boats, Propulsion of	W. T. Duvall	116, 281
Canal-boats, Propulsion of	F. M. Mahan	117, 437
Canal-boats, Propulsion of	W. C. Bibb	118, 329
Canal-boats, Propulsion of	O. Coogan	119, 744
Canal-boats, Propulsion of	P. H. Fontaine	119, 923
Canal-boats, Propulsion of	N. T. Edison	120, 371
Canal-boats, Propulsion of	J. M. McMaster	120, 823
Canal-boats, Propulsion of	C. Schilling	119, 792
Canal-boats, Propulsion of	W. E. Prall and J. D. Defrees	121, 469
Canal-boats, Propulsion of	H. Fowler	121, 712
Canal-boats, Propulsion of	H. Fowler	121, 713
Canal-boats, Propulsion of	H. Fowler	121, 714
Canal-boats, Propulsion of	T. J. Burke	121, 749
Canal-lock	J. W. Gentry and G. W. Barcus	116, 583
Cancer and other diseases, Medical compound for cure of	F. Baker	116, 530
Cancer, Compound for the cure of	J. Harrison	114, 810
Cancer, Medical compound for cure of	N. McKelfresh	121, 534
Can, Confectioners and grocers'	J. S. Batchelder	118, 899
Candle	H. Ryder	120, 103
Candle-molding machine	J. Wales	113, 117
Candles, Manufacture of	C. Harvard	114, 438
Candy, &c., Machine for slicing	J. P. Anderson	117, 589
Candy-cutting machine	C. Wentz, A. Green, and O. P. Connor	111, 592
Candy, Machine for making	T. and G. H. Mills	111, 765
Cane-juice, &c., Apparatus for defecating and bleaching	M. Landry	117, 787
Cane-juice, &c., Apparatus for evaporating	E. Sperry	113, 590
Cane-stubble shaver	F. F. Patout	115, 094
Can filling and soldering apparatus	C. C. Straub	116, 114
Can for hydrocarbon liquids	I. W. Shaler	119, 657
Can for nitro-glycerine	J. Taylor	117, 577
Can for roving	E. Haskell	116, 835
Can, Fruit	R. C. Farnham	110, 757
Can, Fruit	T. S. Shaneman and J. S. Hoon	112, 082
Can, Fruit	H. Callahan	118, 586
Can, fruit, Sheet-metal	C. F. Sturgis	113, 111
Canister, Grocers'	W. H. Smith	114, 360
Can, Liquid-measuring	C. M. Bridges	119, 114
Can, Milk	T. M. Bell	111, 302
Can, Milk	T. M. Bell	119, 559
Can, Milk	D. Burnett	121, 154
Cannon, Breech-loading	H. J. Allen	113, 963
Can, Oil	P. Childs	116, 808
Can, Oil	M. S. Kavanagh	117, 544
Can, Oil	J. Burson	118, 194
Can, Oil	L. W. Kent	118, 860
Can, Oil	C. O. Twining	118, 989
Can, Oil	G. D. Winchell	119, 441
Can, Oil	D. D. Mackay and C. Butler	120, 653
Can, Oil	G. S. Prior	121, 545
Can, Oil	F. W. Read	121, 813
Can-opener	E. M. Dewey	118, 593
Canopy	J. Ellisdon	119, 698
Canopy, Lawn	F. H. and W. H. Vick	121, 693
Cans and other vessels for preserving fruits, meats, &c. Sealing.	N. H. Shipley	112, 642
Cans, barrels &c., Apparatus for testing	W. D. Brooks	121, 581
Can, Sheet-metal	J. G. Evenden	115, 943

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Can, Sheet-metal.....	L. Thomas.....	121, 139
Cans, Machine for making sheet-metal screw-necks and screw-caps for.....	J. H. Stone.....	121, 435
Cans, Screw-cap for.....	L. R. Boyd.....	115, 927
Can, Tin.....	J. F. Merrill.....	112, 477
Can, Tin.....	S. E. Gunn.....	121, 869
Can-top.....	C. E. Dayton.....	114, 931
Can, Wood-incased.....	O. S. Camp.....	118, 904
Cap for billiard-table bolt-heads.....	J. Plunkett.....	116, 990
Cap for preserve-jars.....	W. Taylor and C. Hodgetts.....	117, 236
Cap-gun.....	J. C. Bandle and E. P. Christner.....	117, 367
Cap-shearing block.....	R. Cook and T. Hanford.....	119, 449
Capstan.....	J. S. Brown.....	116, 548
Capstan, Purchase for.....	J. Edgecomb.....	113, 032
Capsuling bottles.....	J. Paterson.....	121, 407
Car and tender loading apparatus.....	J. Williams.....	122, 207
Car-axle box.....	D. H. Dotterer.....	118, 701
Car axles and shafts.....	J. Montgomery.....	111, 862
Car-basket, Railway.....	M. Tower.....	121, 024
Carbonaceous matter for the manufacture of gas, Com- bining.....	G. McKenzie.....	113, 905
Car-brake apparatus, Steam-power.....	G. Westinghouse, jr.....	115, 667
Carbureting, Apparatus for.....	G. Edmunds.....	115, 182
Carbureting-machine.....	A. E. Dupas and A. Barbarin.....	113, 147
Car-coupling, Automatic.....	D. P. Cory.....	110, 741
Card-envelope.....	C. Rowland.....	117, 818
Card for mariners' liquid-compasses.....	E. S. Ritchie.....	111, 254
Card-holder.....	E. Stewart.....	117, 120
Carding and other machines, Construction of cylin- ders for.....	J. M. Stone.....	111, 988
Carding and other preparing engines, Feeding device for.....	E. Pettitt.....	111, 674
Carding-machine cylinders, Means for securing the clothing on.....	H. Bennett.....	120, 615
Carding-machines, Apparatus for stripping the top flats of.....	E. C. Pfaff.....	113, 339
Carding-machines, Mechanism for adjusting the rollers of.....	E. Lord.....	118, 029
Carding-machines, Stripper carrying-frame for.....	J. F. Foss.....	115, 185
Cards, &c., Apparatus for exhibiting.....	I. M. Miller.....	120, 309
Car, Dumping.....	S. D. King.....	112, 052
Car, Dumping.....	D. J. Brimmer.....	113, 013
Car, Dumping.....	W. H. Harding and G. F. Morse.....	113, 655
Car, Dumping.....	W. A. Sharp.....	113, 804
Car, Dumping.....	A. Peteler.....	115, 514
Car, Dumping.....	J. C. Wiswell.....	116, 127
Car, Dumping.....	N. W., C. W., and N. H. Camp.....	117, 739
Car, Dumping.....	S. Rouseulp and J. B. Shambaugh.....	118, 557
Car, Dumping.....	T. McVay.....	118, 959
Car, Dumping.....	S. D. King.....	119, 856
Car, Dumping.....	C. Barrett.....	121, 981
Car, Dumping.....	F. B. Colton.....	122, 226
Car-dumping apparatus.....	E. Cockill.....	119, 122
Car, Grain.....	A. E. Gordon.....	121, 612
Car, Grain-drying.....	C. S. Dole.....	114, 534
Car, Grain-dumping.....	L. Brammerlin.....	110, 724
Car, Hand.....	W. T. Beekman.....	112, 008
Car, Hand.....	M. E. Hastings.....	116, 527
Car for elevated railways.....	J. B. Newbrough.....	121, 539
Car, Motive-power and balance.....	J. Bayma.....	121, 316
Carrousel.....	W. Schneider.....	117, 336
Car, passenger, Railway.....	J. T. Worley.....	122, 208
Carpenters' shooting-board.....	J. Jones.....	110, 765
Carpet.....	G. Crompton.....	111, 325
Carpet-beater.....	J. Hothersall and J. Banks.....	116, 958
Carpet-beater.....	J. W. and W. A. Wheeler.....	122, 297
Carpet-beating machine.....	T. and W. H. Jordan.....	117, 543
Carpet-binding, Metal.....	R. P. Johnson.....	118, 019
Carpet-cleaner.....	H. H. Lindhorst.....	111, 355
Carpet-cleaning machine.....	J. C. Craft.....	112, 421
Carpet-fastener.....	A. Givaudan.....	113, 874
Carpet-fastening.....	J. A. Robbins.....	112, 633
Carpet-lining.....	J. C. Mayall.....	111, 465
Carpet-lining.....	J. R. Harrington.....	113, 765
Carpet-linings, Machine for folding.....	J. C. Mayall.....	116, 467
Carpet-linings, paper, Machine for the manufacture of.....	C. A. Pease.....	111, 081
Carpet-protector.....	H. W. Eskildson.....	116, 822
Carpet-stretcher.....	C. E. Gale.....	111, 337
Carpet-stretcher.....	E. P. Shaffer.....	114, 053
Carpet-stretcher.....	S. Elliott.....	117, 528
Carpet-stretcher.....	J. H. De Poe.....	118, 214
Carpet-stretcher and tack-hammer combined.....	W. Brown.....	117, 735

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Carpet-sweeper	R. C. Higgins	114, 680
Carpet-sweeper	O. H. Weed	115, 399
Carpet-sweeper	D. C. Hall	116, 833
Car, Railroad	J. W. Griffiths	114, 675
Car, Refrigerating	C. L. Hoag and E. Ely	119, 847
Car, Refrigerating	A. S. Lyman	121, 530
Car-replacer	D. H. Ball and J. Brooks	110, 723
Car-replacer	C. C. Ash	114, 745
Carriage	C. H. Guard	111, 923
Carriage	C. Thomas	113, 705
Carriage	J. Curtis	119, 579
Carriage	C. W. Saladee	120, 106
Carriage	E. C. Newton	121, 295
Carriage and perambulator, Child's	B. P. Crandall, jr.	113, 402
Carriage-body	C. Thomas	111, 491
Carriage-bow cover and slat-iron combined	J. N. Topliff	114, 885
Carriage, Children's	J. Crandall	110, 744
Carriage, Children's	W. E. Crandall	110, 745
Carriage, Children's	R. C. Britton	111, 103
Carriage, Children's	G. Martienssen	115, 623
Carriage, Children's	J. B. Wightman	115, 920
Carriage, Child's	W. B. Whitney	112, 662
Carriage, Child's	R. G. Elder	112, 696
Carriage, Child's	H. Warner	118, 656
Carriage, Child's	H. Lutz	119, 162
Carriage, Child's	J. G. Krieger	119, 523
Carriage, Child's	C. Holt	120, 645
Carriage, Child's	E. Falkingham	121, 453
Carriage-clip	M. Seward	112, 743
Carriage-clip blank and die for making the same	H. M. Beecher	118, 780
Carriage-clips, Apparatus for compressing and inserting rubber blocks into	T. H. Brown and C. E. Gilman	113, 624
Carriage-curtain fastening	J. Zimmerman	118, 665
Carriage-curtain strap	H. Cornell and A. H. Marshall	119, 450
Carriage-cushion, Spring	T. S. Burnett	111, 903
Carriage, Dumping	J. R. True	118, 072
Carriage for children, Folding	H. Lutz	120, 757
Carriage for common roads, Steam	F. Alger	115, 802
Carriage-gearing	C. Custer	112, 905
Carriage, Hand	W. Allen and J. W. Bond	115, 674
Carriage-holdback	W. R. Baker	114, 746
Carriage-jack, bag-holder, and weighing-scales, Combined	N. Berkeley	118, 678
Carriage, Landau	E. Wells	112, 758
Carriage-nut	J. P. Skinner	120, 004
Carriage-perch	I. P. Bacon	112, 523
Carriage, Saw-mill	G. Selden	117, 936
Carriages, Block for top-prop joints for	J. J. Wilson	113, 477
Carriages, Body-loop for	W. W. Knowles	117, 179
Carriages, Dash-board for	A. B. Hurd	120, 647
Carriages, Die for forging, trimming, and shaping spring-clips for	F. B. Morse	111, 668
Carriages, Double-perch and fifth-wheel for	D. C. Doran	118, 115
Carriage-seat, Adjustable	S. W. Beach	113, 387
Carriage-seat, Adjustable	S. W. Beach	115, 152
Carriages, Fifth-wheel for	P. S. Eastman	114, 539
Carriages, Folding-step for	G. Gregory	114, 673
Carriages, Folding-step for	G. H. Vollhardt	115, 664
Carriages, Folding-step for	E. Wells	115, 665
Carriage-shackle	L. M. Lawless	118, 729
Carriages, Holdback for	J. A. Lannert	119, 370
Carriages, Horse-holder attachment for	G. W. Goodwyn	111, 924
Carriages, King-bolt for	D. Hyde and E. H. Andrews	113, 521
Carriages, Method of attaching springs to	U. S. Hall	114, 676
Carriages, Method of forming body-loops for	R. R. Miller	110, 773
Carriages, Mode of coupling	W. T. Dole	122, 235
Carriage-spring attachment	O. E. Bennett	119, 550
Carriage-springs, Machine for grinding	H. M. Wentworth	112, 873
Carriage-springs, Connecting	J. A. Topliff and G. H. Ely	122, 079
Carriage-springs, Machine for forming	W. Harty	113, 164
Carriages, Running-gear for	J. Rancevan	113, 092
Carriages, Running-gear for	E. Wigle	114, 072
Carriages, Running-gear for	J. C. Anderson and A. W. Benson	118, 093
Carriages, Spring-supporter for	D. H. Brown	111, 809
Carriage-step	F. B. Morse	113, 551
Carriage-step	F. B. Morse	118, 632
Carriage-steps, Method of making	F. B. Morse	114, 025
Carriage, Street	G. S. McHenry	118, 255
Carriage-top	W. Bauder	114, 751
Carriage-top	A. McKenzie	119, 166
Carriage, Top-prop for	F. A. Bradley	114, 909
Carriage, Top-prop and joint for	C. W. Saladee	120, 107

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Carriage-top prop-block washer	A. D. Westbrook	122, 205
Carriage-wheel hubs, Combined axle-box, sand-band, and casing for.	M. McNalley	122, 185
Carriage-wheels, Fastening	F. Berndt and F. Barsch	121, 841
Cars, Construction of	J. E. Leeper	116, 069
Cars, Device for starting and stopping	P. Rhoads	112, 494
Car-seat, Adjustable	C. Stevenbanks and J. Quinn	115, 539
Car-seat backs, Removable	P. F. Duchemin	111, 184
Car-seat frame	G. Buntin	121, 486
Cars, Electric motor for	S. Jones	111, 348
Cars, Grain-door for	L. F. Frazee	114, 661
Car, Sleeping	F. W. Parsons	116, 746
Cars, Passenger-register for	J. King	111, 948
Car-starter	W. H. Newton	110, 780
Car-starter	F. J. Wright and L. M. Wandell	111, 294
Car-starter	G. B. Kirkham	111, 353
Car-starter	J. F. Stokes	116, 508
Car-starter	J. North	121, 540
Car, Stock	J. P. Leavitt	121, 635
Car, Stock	A. Rank	111, 872
Car, Stock	G. W. Fox	114, 795
Car, Stock	A. Rank	116, 866
Car, Stock	T. E. Knauss	122, 120
Car, Stock and freight	J. B. Calkins	116, 804
Car, Stock and freight	J. B. Calkins	122, 104
Car, stock, Railway	A. Rank, H. King, and J. Sharp	111, 873
Car, Street	C. B. Broadwell	112, 215
Cars, Turn-table and railway-track for changing gauge of.	W. K. Muir	120, 161
Cart and brake, Self-adjusting	J. Showalter	117, 213
Cart and dray shafts, Traveler for	W. B. McClure	121, 184
Cart-body fastening	E. Spalding	116, 641
Cart, Dump	G. L. Collins	121, 086
Cart, Dumping	W. Hand	113, 293
Cart, Dumping	O. Benson and J. G. Falk	119, 444
Cart, Dumping	B. G. Fitzhugh	119, 976
Cart, Excavating	J. King	121, 108
Cart, Manure	B. Teague	118, 298
Cart, Milk	J. Harris	115, 606
Cartridge	R. White	112, 305
Cartridge	L. M. Milbank	115, 498
Cartridge	C. S. Wells	115, 548
Cartridge-belt	W. B. Hayden	111, 450
Cartridge-loader	G. H. Ferriss	118, 849
Cartridge-magazine	W. H. Elliot	118, 916
Cartridge, Metallic	R. White	110, 881
Cartridge, Metallic	E. Martin	111, 856
Cartridge, Metallic	S. Crispin	113, 634
Cartridge, Metallic	T. J. Powers	115, 892
Cartridge, Metallic	T. J. Powers	116, 094
Cartridge, Metallic	W. S. Smoot	116, 100
Cartridge, Metallic	A. C. Hobbs	117, 173
Cartridge, Metallic	J. S. Crary	117, 388
Cartridge, Metallic	G. R. Pierce	120, 323
Cartridge, Metallic	W. S. Smoot	120, 338
Cartridge, Metallic	G. R. Stetson	120, 403
Cartridge, Metallic	A. Payne	120, 529
Cartridge, Metallic	J. W. Cochran	120, 625
Cartridge, Metallic	C. F. and J. E. De Darteir	120, 630
Cartridge, Metallic	H. Metcalfe	120, 990
Cartridge, Metallic	S. Forehand and H. C. Wadsworth	121, 606
Cartridge, Metallic	A. Payne	121, 608
Cartridge-shell ejector for revolving fire-arms	G. H. Harrington	111, 534
Cartridge-shell for drill purposes	A. C. Hobbs	119, 357
Cartridge, Shot	C. W. Lovett, jr.	113, 677
Cartridge-shells, Machine for heading	T. V. Boyden	114, 639
Cartridges, Instrument for extracting caps from	W. Clews	119, 506
Cartridges, Means for uncapping	C. A. King	120, 075
Car truck and axle	G. B. Bryant	120, 488
Car-truck, Changeable gauge	G. F. Morse	115, 343
Car-truck, Railway	C. S. Buck	112, 897
Car-truck, Self-adjusting	E. Hipkins	111, 933
Car-trucks, Railway	G. E. Brown and W. Bell	120, 935
Cart-saddle	W. B. McClure	119, 382
Carts, dumping, Lifting-jack for	R. B. Little	122, 036
Cart, Self loading and dumping	J. B. Hulbert	115, 321
Carving and engraving, Hand-tool for	G. B. Soley	112, 860
Carving-machine	J. W. Campbell	117, 978
Car-wheel, Adjustable gauge	W. B. Snow	118, 065
Car wheel and axle, Changeable gauge	C. D. Tinsdale	118, 170
Car wheel and axle, Changeable gauge	P. Putnam	118, 642
Car-wheel, Elastic	J. A. Woodbury	117, 498

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Car-wheel, Elastic.....	J. M. Whiting.....	121, 032
Car-wheel gear, Self-adjusting.....	G. Sewell.....	114, 979
Car-wheels, Casting.....	C. Needham.....	110, 779
Car-wheels, Casting.....	J. K. and N. B. Morange.....	114, 958
Car-wheels, Lubricating.....	C. Smith.....	120, 337
Case for odometers.....	J. D. Seipel and C. B. Alsover.....	111, 008
Case for reed organs.....	C. E. Bacon.....	110, 819
Case-shot.....	S. W. Paine.....	112, 274
Casing and furnace, Steam-boiler.....	W. P. Hall.....	122, 010
Casing for window-pulleys.....	N. Thompson.....	119, 199
Cask for paste.....	H. Braunhold.....	113, 622
Cask or barrel.....	J. Marshall.....	117, 185
Casks and barrels, Machine for pitching.....	A. Warth.....	114, 999
Casks, Spring-vent for.....	E. J. Bennett.....	117, 731
Caster.....	F. A. Gardner.....	111, 193
Caster.....	J. Kintz.....	115, 619
Caster.....	J. Bradbury.....	120, 563
Caster for furniture.....	S. S. Hickock.....	122, 016
Caster for stove-legs, &c.....	H. A. Humphrey.....	115, 322
Caster for trunks.....	T. L. Rivers.....	120, 670
Caster, Furniture.....	A. G. Stevens.....	114, 061
Caster, Revolving.....	C. H. Latham and J. S. Lugg.....	116, 722
Casting, Apparatus for.....	J. P. Broadmeadow.....	113, 249
Casting brass ingots, Process for.....	L. T. Wooster.....	118, 174
Casting car-wheels.....	J. W. Ells.....	117, 397
Castings, steel, Making.....	W. Kelly.....	122, 255
Cast-iron and machine castings, Method of refining.....	Z. S. Durfee.....	118, 597
Cast-iron, Purification of.....	J. W. Middleton.....	110, 666
Cast-steel from ores, Process and apparatus for the production of.....	C. W. Siemens.....	113, 584
Cast-steel, Manufacture of.....	P. E. Jay and J. A. Rafter.....	114, 299
Cast-steel, Manufacture of.....	R. F. and E. W. Mushet.....	118, 633
Cast-steel, Manufacture of, direct from the ores.....	T. Trafford.....	115, 992
Catarrh and asthma, Medical compound for cure of.....	E. Field.....	112, 329
Catarrh, &c., Compound for treating, by inhalation.....	D. Slade.....	112, 858
Catarrhal douche.....	R. M. Moylt.....	113, 080
Cat-ball.....	T. H. Joyce.....	120, 650
Catch for gate and door latches.....	G. C. Lawton.....	115, 329
Cattle and hogs, Medicine or powder for treating.....	B. H. Pullin.....	118, 052
Cattle-guard for railways.....	W. Darrah and J. Cutshall.....	121, 709
Cattle-guard gate, Railroad.....	J. H. Mallory.....	112, 473
Cattle-guard, Railway.....	S. Strack.....	120, 343
Cattle-stanchion.....	J. A. Rosback.....	111, 255
Cattle-tie.....	S. T. Hutchins.....	112, 922
Ceiling and wall for buildings.....	C. N. Poole.....	113, 793
Ceiling for stages.....	J. W. Dunne.....	113, 277
Ceiling ornament.....	E. T. Bussell.....	121, 845
Cellars, Draining.....	E. S. Dickinson and J. L. Peake.....	117, 156
Cellar, Water-proof.....	T. New.....	113, 328
Cement and appliances for preparing and using the same.....	J. McKenzie and J. M. Stebbins.....	121, 118
Cement for coating oil barrels and tanks.....	I. Waterman.....	116, 651
Cement for lining petroleum-barrels, Elastic.....	J. J. K. Boote and W. A. Gibson.....	113, 485
Cement, Manufacture of.....	D. O. Saylor.....	119, 413
Center-board.....	A. G. Crossman.....	115, 173
Center-board for vessels.....	J. J. Moule.....	116, 079
Centering-machine.....	E. McNeil.....	115, 337
Center-light fixture for chandeliers.....	R. F. White.....	117, 131
Center-pin for railway-trucks, Lateral motion.....	R. B. Jewell.....	119, 150
Chafe-irons for wheeled vehicles.....	E. P. Roche.....	112, 851
Chain for hanging sash.....	M. Magrath.....	112, 938
Chains for watches.....	G. W. Clampit.....	120, 623
Chain-link, Elastic.....	E. Myers.....	116, 986
Chain-links, Machine for bending.....	H. Boyd.....	120, 148
Chain-lock.....	L. F. Cahn.....	120, 619
Chain-machine.....	A. J. Clemmons.....	121, 849
Chains, bands, &c., Electro-galvanic.....	I. L. Pulvermacher.....	120, 772
Chair.....	C. Tucker.....	111, 494
Chair.....	G. Gardner.....	113, 287
Chair.....	J. H. Travis.....	115, 787
Chair.....	G. C. Winchester.....	117, 132
Chair.....	J. Morrison.....	117, 915
Chair.....	W. W. Haupt.....	120, 064
Chair.....	P. M. O. and A. S. S. Snell.....	120, 833
Chair and bed combined.....	G. D. Hathwole.....	113, 662
Chair and bed combined.....	J. E. Pitcher.....	117, 565
Chair and cane, Combined.....	D. O. Parker.....	117, 810
Chair and cradle combined.....	E. Stoney.....	113, 812
Chair and cradle combined.....	A. Abrahams.....	119, 071
Chair and ladder.....	W. Bergman.....	118, 096
Chair and step-ladder, Combined.....	I. Jørgenson and R. Olson.....	113, 304

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Chair and stool iron.....	H. Ocorr.....	115, 979
Chair, Baby's traveling and toilet.....	E. Hoare.....	114, 818
Chair-backs, Machine for molding.....	J. Lemman.....	113, 898
Chair-bottoms, Machine for molding.....	J. Lemman.....	110, 981
Chair-clamp for railway-rails.....	W. Morehouse.....	111, 135
Chair, Dentists' and barbers'.....	A. Gebhard and J. Blodan.....	116, 427
Chair, Dentists' and barbers'.....	O. C. White.....	120, 919
Chair, Electric and vapor.....	M. A. Hayward.....	119, 230
Chair, Extension.....	N. C. O. and A. Collignon.....	116, 271
Chair, Extension.....	D. O. Parker.....	118, 489
Chair, Extension.....	L. F. Schwenkel.....	120, 780
Chair, Folding.....	F. M. Holmes.....	111, 209
Chair, Folding.....	F. M. Holmes.....	111, 455
Chair, Folding.....	F. M. Holmes.....	112, 040
Chair, Folding.....	F. M. Holmes.....	112, 041
Chair, Folding.....	G. Miller and P. Hannah.....	113, 077
Chair, Folding.....	F. W. Richardson.....	114, 199
Chair, Folding.....	C. Brada.....	116, 676
Chair, Folding.....	N. C. O. and A. Collignon.....	116, 811
Chair, Folding.....	H. E. Braunfeld.....	117, 509
Chair, Folding.....	E. Watson and A. McConnell.....	118, 500
Chair, Folding.....	W. Gardner.....	119, 754
Chair, Folding.....	C. A. Jackson.....	119, 849
Chair, folding, Iron.....	G. Wilson.....	116, 784
Chair for boats.....	R. H. Cutter.....	116, 934
Chair for railroad-cars.....	W. Palmer.....	115, 510
Chair, Infants'.....	J. Hayes.....	118, 240
Chair, Invalid.....	G. T. Fowler.....	114, 282
Chair, iron, Folding.....	G. Wilson.....	116, 384
Chair, iron, Folding.....	G. Wilson.....	121, 034
Chair, Knock-down.....	V. Stockton.....	117, 012
Chair, Photographic posing.....	C. A. Schindler.....	120, 110
Chair, Portable.....	G. Gardner.....	111, 053
Chair, Railway.....	J. Lidderd.....	120, 753
Chair, Reclining.....	C. Dietz.....	114, 777
Chair, Reclining.....	W. Donoghue.....	117, 056
Chair, Reclining.....	L. Van Orden.....	117, 351
Chair, Reclining.....	W. Heath.....	118, 719
Chair, Reclining.....	H. Thompson.....	120, 127
Chair, Reclining and folding.....	E. W. Hastings.....	121, 941
Chair, Reclining and rocking.....	S. Hayward.....	110, 653
Chair, Revolving.....	F. Barber.....	113, 967
Chair, Rocking.....	G. Csapp.....	116, 689
Chair, Rocking.....	J. W. H. Doubler.....	120, 422
Chair, Rocking and revolving.....	P. S. Ingersoll.....	114, 564
Chair-seat.....	G. A. Watkins.....	118, 079
Chair-seat frame.....	H. Butcher.....	121, 080
Chair, Seating.....	M. Kohn.....	121, 112
Chair-seats into their frame, Device for pressing.....	W. Aldrich and A. F. Spaulding.....	119, 732
Chair, Tilting.....	C. R. White.....	114, 376
Chair, Tilting.....	C. R. Peters and W. P. Taylor.....	116, 629
Chair, Tilting.....	S. S. Hayward.....	119, 143
Chair, Tilting.....	L. Heywood.....	120, 382
Chair, Wall or wainscot.....	J. L. Kapple.....	116, 064
Chandelier.....	C. F. Jacobsen.....	112, 351
Chandelier.....	E. M. Smith.....	120, 114
Chandelier.....	T. Buckley.....	120, 707
Chandelier-center.....	J. Kintz.....	119, 773
Chandelier gas-burner.....	R. Nutting.....	112, 172
Chandelier-center.....	J. Meah.....	119, 780
Charger for powder-flasks.....	G. A., G. D., and J. T. Capewell.....	118, 104
Charger for shot-pouches.....	T. W. Allen.....	110, 887
Charger for shot-pouches.....	T. W. Allen.....	111, 102
Chart-holder.....	D. Shryock.....	119, 054
Check-holder.....	A. A. Baker.....	113, 131
Check-piece for ships' masts.....	J. Baymore.....	113, 386
Check-rein, &c.....	J. Schofield.....	120, 779
Check-rein attachment, Automatic.....	J. Schofield.....	121, 202
Check-rein fastener.....	B. L. Budd.....	120, 238
Check-rein fastener.....	B. L. Budd.....	120, 239
Check-rein swivel.....	A. P. Mason.....	115, 224
Check-row attachment for corn-planters.....	W. C. Grimes.....	113, 761
Cheese, butter, &c., Machine for cutting.....	J. H. Thomas.....	111, 788
Cheese-curd sink.....	H. C. Markham.....	112, 364
Cheese-cutting machine.....	J. G. Baker.....	121, 314
Cheese-frame.....	T. M. Brintnall.....	117, 974
Cheese-hoop.....	A. Holdredge, B. F. and H. H. Harrington.....	112, 597
Cheese-hoop.....	W. Sternberg.....	112, 977
Cheese-hoop.....	W. Sternberg.....	113, 809
Cheese-hoop flange.....	A. Chandler.....	114, 263

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Cheese-turning apparatus.....	J. Q. Black.....	112, 112
Cheese-vat.....	E. H. and W. A. Stuart.....	112, 090
Cheese-vat.....	A. B. Armstrong.....	118, 507
Cheese-vat fastener.....	S. P. Halleck.....	117, 411
Cherry-stoner.....	A. M. Comstock.....	121, 592
Chest, clothing, Moth-proof.....	R. S. Jennings.....	120, 976
Chest-expander.....	S. L. Barnett.....	113, 384
Chest-protector.....	P. Lear.....	112, 258
Chicken-coop, Folding.....	E. J. Wilcox.....	120, 921
Children, Apparatus for photographing.....	W. W. Sloan.....	116, 765
Children's bib.....	A. L. Thomson.....	114, 366
Child's high chair and workstand, Combined.....	D. O. Parker.....	118, 479
Child's nursery-gate.....	E. Howard.....	116, 960
Chilled-rolls, Method of finishing.....	G. G. Lobdell and J. Megaw.....	121, 180
Chills and fever, Compound for cure of.....	W. P. Feunell.....	114, 784
Chills and fever, Medical compound for the cure of.....	I. Brown.....	121, 989
Chills, fever, &c., Medical compound for treating.....	R. Revill.....	119, 812
Chime for reed and pipe organs, &c.....	C. Lehnert.....	121, 790
Chimney.....	A. B. Ewing.....	113, 150
Chimney.....	S. Hopkins.....	115, 961
Chimney.....	S. Oakman.....	117, 320
Chimney.....	S. M. McCord.....	117, 555
Chimney.....	C. H. Brown.....	120, 031
Chimney-cap.....	T. D. Bailey.....	112, 529
Chimney-cap.....	W. J. Pettingell.....	116, 864
Chimney-cap.....	A. B. Johnson.....	122, 022
Chimney-collar.....	J. H. Congdon.....	115, 168
Chimney-cowl.....	W. N. Abbott.....	113, 961
Chimney-cowl.....	G. G. Thomas.....	116, 887
Chimney-cowl.....	J. Walker.....	117, 129
Chimney-cowl.....	J. G. Roth.....	119, 885
Chimney for lime-kilns.....	W. Rennyson.....	111, 874
Chimney, Lamp.....	R. S. Merrill.....	111, 073
Chimney, Lamp.....	J. M. Rankin, jr.....	112, 182
Chimney, Lamp.....	G. W. Griswold.....	112, 446
Chimney, Lamp.....	M. W. House.....	112, 460
Chimney, Lamp.....	T. A. Davies.....	114, 113
Chimney, Lamp.....	S. W. Fowler.....	115, 458
Chimney, Lamp.....	D. E. Somes.....	117, 341
Chimney, Lamp.....	E. D. Ashe.....	117, 500
Chimney-top.....	R. W. Griffith.....	111, 839
Chimney-top.....	M. S. Kavanaugh.....	113, 527
Chimney-top.....	W. Richards.....	114, 342
Chimney-top.....	C. S. Earle.....	118, 521
Chimney-top.....	F. Ketchen.....	121, 633
Chisel for mortising-machines.....	E. McConnell.....	113, 075
Chlorine, Apparatus for producing.....	H. Deacon.....	118, 211
Chlorine, Apparatus for the manufacture of.....	H. Deacon.....	118, 209
Chocolate-drops and other confections, Apparatus for making.....	S. A. Parker.....	119, 946
Chopping-machine.....	E. Newcomer.....	114, 589
Chuck for holding valve-cocks to be dressed.....	J. L. Hayden.....	119, 516
Chuck for lathes.....	J. Rich.....	113, 095
Chuck for metal-turning lathes.....	A. F. Cushman.....	121, 494
Chuck for screw-cutting.....	C. Deavs.....	121, 340
Chuck for watchmakers' lathes.....	W. Kerr, jr.....	115, 324
Chuck for wood-lathes.....	R. H. Dowling.....	115, 179
Chuck, Watchmakers'.....	A. K. P. Walker.....	117, 703
Churn.....	J. H. Reed.....	110, 678
Churn.....	J. Clark.....	110, 897
Churn.....	J. Cram.....	110, 902
Churn.....	A. and Z. A. Gifford.....	110, 968
Churn.....	W. W. Stillwell.....	111, 490
Churn.....	W. Parks.....	111, 562
Churn.....	J. McBride.....	111, 555
Churn.....	F. B. Chapman.....	111, 907
Churn.....	T. Freeman.....	112, 332
Churn.....	D. Frankfoder.....	112, 796
Churn.....	H. S. Gurney and H. Merrill.....	112, 806
Churn.....	G. S. Perfater.....	113, 809
Churn.....	W. E. Budd.....	113, 251
Churn.....	A. Shaffer.....	113, 580
Churn.....	H. Schultdrees.....	114, 050
Churn.....	J. J. Kimball.....	114, 306
Churn.....	J. E. Finley.....	114, 785
Churn.....	B. H. Steele.....	114, 873
Churn.....	J. B. Williams.....	115, 552
Churn.....	J. Jackson.....	116, 194
Churn.....	T. B. Parke.....	116, 348
Churn.....	O. F. Monfort.....	116, 855
Churn.....	J. L. Rust.....	116, 871

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Churn	F. M. English	116, 940
Churn	G. Groom	117, 070
Churn	H. Hensel	117, 629
Churn	J. Shaver	117, 821
Churn	E. Wilcox	118, 320
Churn	J. M. Yeager	118, 664
Churn	J. W. Chapman	118, 687
Churn	E. Groat	118, 712
Churn	E. Groat	118, 713
Churn	G. Spayd	118, 826
Churn	C. S. Young, H. Wissinger, and T. T. Williams	119, 068
Churn	T. C. Smith and N. L. Francis	119, 193
Churn	H. H. Montgomery	119, 387
Churn	J. Gire	119, 840
Churn	W. H. Link	119, 870
Churn	A. Traver and P. Nichols	119, 898
Churn	L. Runyon	120, 103
Churn	J. S. Ward	121, 560
Churn	M. Fisk	121, 604
Churn	J. Cochran, jr	121, 755
Churn	W. Fritts	122, 004
Churn	J. A. Jordan	122, 026
Churn-dasher	C. Johnson	113, 172
Churn-dasher	S. Stout	113, 361
Churn-dasher	W. F. Jones	114, 016
Churn-dasher	J. M. See	114, 478
Churn-dasher	H. L. Wells	114, 736
Churn-dasher	S. F. Dolloff	115, 177
Churn-dasher	W. F. Jones	115, 323
Churn-dasher	J. W. McClure	115, 496
Churn-dasher	H. Mulholland	117, 446
Churn-dasher	B. F. Stover and I. W. Warner	117, 479
Churn-dasher	D. L. Grover	119, 980
Churn-dasher	H. S. Potter	120, 097
Churn-dasher	W. C. Brovhill and W. D. Sperry	120, 849
Churn-dasher	E. J. Ashton	120, 928
Churn-dasher	A. T. Still	122, 075
Churn-dasher rod	M. G. Decrow	120, 046
Churn, Oscillating	E. W. Bullard	120, 708
Churn-power	B. F. Frampton	117, 166
Churn-power	L. A. Haight	118, 529
Churns, Apparatus for operating	P. L. Jordan	113, 435
Chute of water-wheel cases	J. T. Fanning	120, 954
Cider, Making	G. B. Hamlin	111, 930
Cider mill and press, Combined	O. M. Brock	117, 041
Cigar-box, Water-proof	J. L. Thomson	116, 373
Cigar-bunches, Machine for pressing and molding	W. D. Brewer	117, 377
Cigar-filling	S. Scholfield	111, 089
Cigar-lighter	J. B. Miller	120, 453
Cigar-lighter	M. F. Gale	121, 049
Cigar-machine	I. A. Heald	113, 880
Cigar-machine	S. L. Cole	116, 026
Cigar-machine	G. W. Tanner	117, 482
Cigar-machine	S. Scholfield	121, 298
Cigars, Apparatus for cutting the ends of	M. J. Hinden	112, 808
Cigars, Device for labeling	R. H. Andrews	111, 804
Cigars, Machine for examining and replacing	J. Levy	118, 541
Cigars, Machine for making	M. V. McKinney	119, 040
Cigars, Machine for making	J. Wettstein	115, 002
Cigars, Method and apparatus for making	C. A. Metz	118, 739
Cigars, Sample-box for	J. C. Frishmuth	115, 188
Circular-saws, Machinery for grinding	J. Pedder and G. Abel	118, 482
Circuit-closer	W. Unger	120, 132
Circuits for telegraph purposes, Arrangement of	G. Little	115, 970
Cistern, Filtering	J. Q. Simonson	119, 189
Citrates of iron and manganese for medical purposes	A. R. Clapp	114, 264
Clamp	J. J. Dominic	110, 961
Clamp	T. O. Cornish	121, 851
Clamp, Cigar	N. A. Buhle	120, 240
Clamp, Clothes	C. L. Poorman	115, 099
Clamp, Clothes	E. Hedge and T. H. Fleming	116, 307
Clamp, Crimping	J. Kunstler	117, 304
Clamp, Door	H. O. Hooper	112, 342
Clamp, Floor	D. Nevin	111, 560
Clamp, Floor	T. S. Urie	119, 203
Clamp for carriage-seats	H. J. Northrup	111, 140
Clamp for entering blind-slats	J. Church	117, 383
Clamp for fruit-jars	I. Buckman, jr	121, 232
Clamp for holding timber	P. Scholl	121, 816
Clamp for making picture-frames	L. A. Johnson	119, 151

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Clamp for mortising-machines	A. Schmaeckers	119, 414
Clamp for thill-couplings	J. W. Guider	112, 448
Clamp for thill-couplings	W. Boyd	115, 273
Clamp, Hub	J. McClelland	118, 868
Clamp, Joiners'	W. H. Goodchild	114, 800
Clamp, Joiners'	W. H. Goodchild	114, 801
Clamp, Rigging	J. H. Gillis	120, 962
Clarionet	A. Fritsche	110, 845
Clasp for artificial limbs	S. F. Burd and J. F. Denniston	112, 683
Clasp for elastic tubes, Regulating	W. Bunce	113, 016
Claw-bar	C. Winter	112, 401
Claw-bar	D. Christie	117, 046
Clay-pulverizer	G. C. Bovey	117, 973
Clevis	J. H. Shaw	115, 113
Clevis	S. W. Pope	118, 050
Clevis-hook for double-trees	W. W. Bently	112, 888
Clip for buggy-springs	R. A. Clark	112, 540
Clock-case, Glass	C. A. Moore	119, 990
Clock, Electric	W. M. Davis	120, 185
Clock-movement	B. B. Lewis	113, 781
Clock, Programme	S. F. Estell	119, 833
Clocks, Striking mechanism of	G. A. Jones and H. H. Warner	115, 481
Clocks, Striking-mechanism of	C. W. Roberts	121, 730
Clock, Swinging	G. Herrman	117, 254
Clod breaking and pulverizing machine	H. H. Hull	119, 361
Clod-crusher	J. B. Oakey	112, 071
Clod-crusher	J. Schlosser	118, 749
Clod crusher and pulverizer	J. W. Pollock	117, 680
Clod-fender	R. T. Gillespie	111, 631
Clod-fender	F. L. Bailey	112, 405
Clod-fender	G. L. Perry	118, 267
Clothes-drier	H. M. Stevenson	110, 691
Clothes-drier	J. L. Brigham	110, 952
Clothes-drier	H. Swan	111, 011
Clothes-drier	A. Day	111, 519
Clothes-drier	A. H. Patch	111, 563
Clothes-drier	L. D. Howard	111, 747
Clothes-drier	J. K. Wagner	111, 888
Clothes-drier	E. L. Parker	112, 072
Clothes-drier	A. Stechschult	113, 106
Clothes-drier	E. N. Porter and I. J. Currier	113, 204
Clothes-drier	H. S. Black	114, 519
Clothes-drier	T. H. Chubb and W. G. Marston	114, 527
Clothes-drier	L. M. Whitman	114, 630
Clothes-drier	M. Flanders	114, 934
Clothes-drier	F. W. Goodale and J. J. Brennan	115, 461
Clothes-drier	J. K. Derby	115, 829
Clothes-drier	J. Johnson	115, 866
Clothes-drier	J. F. Mulowny	116, 081
Clothes-drier	C. F. Linscott	116, 606
Clothes-drier	D. C. Smart	116, 639
Clothes-drier	O. H. Harding and D. G. Williams	117, 414
Clothes-drier	E. E. Stedman	117, 695
Clothes-drier	M. H. Wood	117, 847
Clothes-drier	J. W. Reed and H. A. Jones	118, 272
Clothes-drier	A. Harleigh	118, 612
Clothes-drier	C. F. Smith and A. Haerther	119, 191
Clothes-drier	G. C. Smith	119, 539
Clothes-drier	H. Knight	120, 443
Clothes-drier	D. Miller	120, 452
Clothes-drier	G. F. Couty	120, 719
Clothes-drier	H. J. Lockwood	120, 756
Clothes-drier	G. C. Smith and C. H. Dietrich	120, 785
Clothes-drier	O. S. Smith and C. R. Hopkins	121, 208
Clothes-drier	J. R. Fellows	121, 349
Clothes-drier	R. L. Normando	121, 404
Clothes-drier	G. A. Keene	121, 722
Clothes-drier	W. C. Maynard	122, 043
Clothes-drier	W. A. Sleppy	122, 071
Clothes-drier	Z. B. Putnam and H. H. McDonald	122, 250
Clothes-drier and awning combined	C. E. Hyde	121, 371
Clothes-drier and ironing-board	M. Power	121, 127
Clothes-drier and pendant seat, Combined	J. Hiron	120, 555
Clothes-drier, Stove-pipe	C. M. Herreman	118, 241
Clothes-drying machine	J. O. Luther and P. Staab	116, 333
Clothes-holder	W. Z. Brown	120, 570
Clothes-line conductor	D. Reed and A. Shaeffer	113, 563
Clothes-line fastener	H. J. Hendey	111, 843
Clothes-line holder	W. J. Ripley	114, 345
Clothes-line holder	E. W. Talbott	110, 602
Clothes-line holder	C. L. Topliff	114, 728

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Clothes-line holder.....	E. Dingman.....	116, 034
Clothes-line holder.....	J. B. Habecker.....	121, 167
Clothes-line protector and stretcher.....	W. J. Ripley.....	114, 345
Clothes-lines, Housing for.....	A. Turnbull.....	115, 544
Clothes-line supporter.....	T. Riley.....	116, 632
Clothes-pin.....	G. A. Harris.....	110, 649
Clothes-pin.....	H. J. Wattles.....	112, 303
Clothes-pin.....	O. A. Bishop.....	112, 315
Clothes-pin.....	C. H. Goss.....	113, 289
Clothes-pin.....	A. B. Lipsey.....	113, 313
Clothes-pin.....	E. Burling.....	119, 311
Clothes-pin.....	H. Mellish.....	119, 938
Clothes-pin.....	H. J. Wattles.....	121, 303
Clothes-pin.....	L. and C. H. Sprague.....	122, 199
Clothes pin or clasp.....	A. L. Keeports and W. Yout.....	112, 466
Clothes-pole, Extension.....	J. and W. Denton.....	118, 698
Clothes-pressing machine.....	P. Howe.....	116, 057
Clothes-receptacle, ironing-board and drier, Combined.....	S. D. McDougall.....	112, 614
Clothes-rubber.....	S. Foster.....	112, 235
Clothes-washer.....	H. W. Pell.....	119, 399
Clothes-washer.....	D. P. Sulouff.....	121, 216
Clothes-washer.....	D. P. Sulouff.....	121, 217
Clothes-wringer.....	S. W. and J. F. Palmer.....	121, 657
Cloth, Hair.....	W. Rossnagel.....	120, 330
Cloth, hair, Initiation.....	W. Rossnagel.....	120, 331
Cloth, Machine for cutting.....	W. Raenchle.....	113, 927
Cloth, Machine for cutting.....	E. B. Wells.....	117, 352
Cloth, Machine for plaiting.....	W. M. Storm.....	122, 137
Cloth, Machine for pressing.....	P. Howe.....	121, 720
Cloth, Machine for tentering.....	G. S. Rogers.....	122, 283
Cloth, Machine for washing and fulling.....	S. Arnold.....	119, 958
Cloth-measuring machine.....	I. Mills.....	117, 443
Cloth-measuring machine.....	T. M. Brintnall.....	119, 303
Cloth, Method of cutting.....	E. J. Lake.....	122, 260
Cloth, Process of manufacturing.....	A. Ruze.....	116, 497
Cloth-pressing machine.....	P. Howe.....	119, 708
Cloths, &c., Composition of madder for printing.....	A. Paraf.....	113, 919
Cloth-shearing machine.....	J. A. Thurston.....	120, 219
Cloth-steaming apparatus.....	L. M. Heery.....	115, 200
Cloth strip-bristles.....	A. L. Peyroux.....	120, 320
Cloth, wood, metals, &c., Water-proof compound for covering.....	P. E. Minor.....	112, 370
Cloth, Woven.....	A. Ruze.....	116, 498
Club, Exercising.....	C. E. Heister.....	115, 856
Club-foot, Surgical instrument for the treatment of.....	E. A. Grant.....	114, 669
Clutch for water-wheels, Self-releasing.....	G. W. Wesley.....	113, 826
Clutch-gearing.....	L. S. Fithian.....	117, 758
Clutch-mechanism.....	D. M. Weston.....	119, 677
Coal, Apparatus for dumping.....	R. Jenkins and T. Woods.....	115, 738
Coal-box.....	C. W. Coffin.....	120, 494
Coal-chute.....	J. Rhodes.....	115, 640
Coal-chute.....	W. E. Phelps.....	121, 413
Coal-gas apparatus.....	E. Jones.....	122, 024
Coal-gas, Manufacture of.....	J. A. Bassett.....	118, 579
Coal-gas, Manufacture of.....	D. Davidson.....	120, 151
Coal-hod.....	C. Smith.....	120, 336
Coal hod and sifter, Combined.....	R. Bogle.....	122, 147
Coal hoister and conveyer.....	J. Green.....	117, 534
Coal, Machine for undermining.....	G. D. Whitcomb.....	118, 501
Coal, Machine for washing.....	G. Lander.....	115, 486
Coal-oil, Apparatus for purifying.....	B. Crawford.....	113, 023
Coal-scuttle.....	G. H. and D. W. Hazelton.....	113, 429
Coal-scuttle.....	J. C. Parrish.....	114, 335
Coal-scuttle.....	J. Pfeifer.....	115, 888
Coal-scuttle.....	E. Eltinge.....	116, 036
Coal-scuttle.....	B. Fielding.....	116, 699
Coal-scuttle.....	E. Mather.....	118, 807
Coal-scuttle.....	J. A. Bragaw.....	119, 738
Coated sheet-iron trays, platters, &c., Manufacture of.....	J. H. Armbruster.....	117, 139
Coating photographic pictures, Composition for.....	H. Happel.....	113, 426
Coating wooden structures, to protect them against fire, Composition for.....	A. Pirz.....	111, 148
Cock.....	W. H. Hedges.....	111, 205
Cock.....	S. Norton.....	115, 091
Cock.....	J. Regester.....	117, 112
Cock, Ale or beer.....	H. Getty.....	112, 701
Cock and fixed socket, Combined removable.....	C. Sullivan.....	111, 699
Cock, Compression.....	W. Dinnen.....	113, 503
Cock, Compression.....	O. N. Ames.....	118, 505
Cock, Cylinder.....	J. Porteus.....	116, 485
Cock, Cylinder.....	M. B. Mason and J. S. McCrum.....	120, 080
Cock for flexible tubes, Compression.....	H. Fairbanks.....	110, 964

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Cock. Lock-stop	J. E. Jones	111, 943
Cock. Self-closing	W. Dalziel	111, 518
Cock. Self-closing	J. M. Mehary	117, 998
Cock. water-closet. Operating	B. P. Spear	119, 058
Coffee and grain cleaner and separator	R. Frisby	118, 710
Coffee, &c., Apparatus for cleaning	J. Johnson	113, 890
Coffee. Apparatus and process for treating	J. Ashcroft	113, 832
Coffee. Apparatus for maturing raw or green	J. Ashcroft	120, 410
Coffee. Cleaning and polishing	W. and S. Thompson	111, 403
Coffee. grain, &c., Machine for cleaning	G. W. Hungerford	119, 149
Coffee-mill and apple-parer. Combined	D. C. Warner	111, 406
Coffee. Polishing	J. T. Randall	112, 738
Coffee-pot	N. Agnew	111, 505
Coffee-pot	W. J. Miller	111, 861
Coffee-pot	D. S. French	113, 156
Coffee-pot	R. H. Kuper	113, 674
Coffee-pot	P. H. Inman and C. B. Withington	114, 012
Coffee-pot	J. T. McNamee	115, 080
Coffee-pot	O. M. Tinkham	115, 134
Coffee-pot	J. Heberling	115, 467
Coffee-pot	J. Cragg	120, 417
Coffee-pot	S. L. S. Cawthon and A. F. Tatom	120, 938
Coffee-pot	R. Brown and E. A. Blaisdell	120, 936
Coffee-pot holder	J. T. Woods and E. H. Leseman	121, 444
Coffee-pot stand	O. Ferris	120, 425
Coffee. Preparation for clarifying	C. L. Tucker	114, 492
Coffee. Process of polishing	G. W. Hungerford	119, 148
Coffee. Process of roasting	J. W. Gillies	116, 298
Coffee. Process of treating	J. W. Gillies	116, 299
Coffee-roaster	L. Houcke	110, 916
Coffee-roaster	A. Obst	114, 330
Coffee-roaster	R. L. Mills	115, 228
Coffee-roaster	J. Galloway	115, 302
Coffee-roaster	N. S. Thompson	118, 497
Coffee-roaster	J. R. Ashcroft	119, 959
Coffee-roaster	D. D. Martin	121, 292
Coffee-dam	J. E. Walsh	111, 156
Coffee-dam	J. E. Walsh	111, 157
Coffee-dam	J. E. Walsh	113, 374
Coffee-dam	J. E. Walsh	120, 352
Coffin	S. Avery	120, 021
Coffin	M. M. Hersman	121, 923
Coffin-receptacle	J. H. Shields	121, 206
Coffins, &c. Cement for coating and sealing	I. Charles	114, 761
Coffins. Apparatus for supporting and lowering	C. A. Thompson and J. O. Coleman	121, 688
Coffins. Compound for covering	J. W. Bower	115, 687
Coffins. Life-detector for	T. E. Schroeder and H. Wuest	121, 666
Cog-gearing	L. R. Faught	119, 683
Coke. Manufacture of	W. McPheeters and C. Pearce	117, 714
Colds, &c. Medical compound pills for cure of	W. E. Chilson	111, 044
Collar. Horse	W. J. Thorn	112, 196
Collar. Horse	J. W. Schwaner	113, 802
Collar. Horse	W. H. Gray	114, 131
Collar. horse. Wooden	Z. C. Robbins	118, 555
Collar-pad	G. P. Cole	117, 151
Collars to lamps, &c., Device for securing	E. S. Kennedy	114, 689
Colter. Plow	C. M. Gordon	113, 421
Column. Metallic	J. A. Kay	118, 021
Column. Metallic	C. Bender	121, 318
Column. Metallic	F. H. Smith	121, 432
Column. Wrought-iron	J. P. Kennedy	118, 948
Columns. Wrought-iron and steel	C. H. Parker	114, 705
Comb	C. H. Noyes	113, 330
Comb	L. Picot	113, 340
Comb and brush	T. Lanston	115, 488
Comb-cleaner	A. Sahlstrom	116, 500
Comb. Curry	W. E. Laurence	115, 743
Comb. Curry	J. Chamont	116, 208
Comb for combing-machines	C. Weiler	113, 825
Comb-guides for bee-hives. Machine for making	H. A. King	115, 066
Combining or mixing two or more substances, Apparatus for	G. W. Wilson	115, 789
Combustible materials. Self-extinguishing safety-can for	W. H. Lawrence	114, 450
Commode and wash-stand combined	S. P. Boone	118, 510
Commode. Folding	R. G. Elder	121, 344
Compass-joint	T. Altneder	111, 715
Compass. Liquid	J. and G. H. Bliss	111, 160
Compass. Ships'	G. W. Wood	112, 990
Compass. Solar	B. S. Lyman	117, 184
Composition for fire-brick	E. F. Rogers	119, 723

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Composition or soap for cleaning the teeth	J. O. Draper	115, 719
Composition, Roofing	J. H. Smyser	113, 588
Composition, roofing, Machine for the manufacture of.	J. J. Wiggin	113, 604
Compound, Disinfecting	G. Viqué	113, 820
Compound, Disinfecting	O. Oldberg	117, 671
Compound, Disinfecting	H. A. Tilden	119, 250
Compound, Disinfecting	H. A. Tilden	121, 913
Compound, Explosive	J. Haffenegger	111, 642
Compound, Explosive	W. Mills	112, 163
Compound, Explosive	E. A. L. Roberts	120, 776
Compound, Explosive	E. Gomez	122, 245
Compound, Fertilizer	W. B. Hamilton	114, 133
Compound, Fertilizing	J. M. Lowenstein	111, 357
Compound for culinary use	H. W. Bradley	110, 626
Compound for destroying worms in the cotton-plant.	T. W. Mitchell	110, 774
Compound for dressing and coloring the hair	J. N. Fallis	111, 443
Compound for filling or stuffing surfaces to be painted or varnished.	D. R. Averill	121, 311
Compound for kindling fires	J. L. Hannum and S. H. Stebbins	112, 337
Compound for liver and other diseases	C. A. Simmons	117, 338
Compound for stove-polish	R. E. Cherrington	110, 824
Compound for treating rheumatism, &c.	W. H. Farrar	113, 995
Compound, Lubricating	J. H. Smyser	110, 690
Compound, Lubricating	E. Dyer, jr.	111, 441
Compound, Lubricating	V. Purdy	112, 489
Compound, Lubricating	A. Millochau	115, 342
Compound, Lubricating	H. Grogan	116, 704
Compound, Medical	H. Lister	111, 655
Compound, Medical	J. A. Robbins	113, 569
Compound, Medical	J. Fay	114, 544
Compound, Medical	G. H. Golttry and F. W. Hogarth	115, 460
Compound, Medical	A. F. Shannon	116, 875
Compound, Medical	G. W. Chambers	118, 686
Compound, Medical	B. Gutierrez	118, 714
Compound, Medical	J. L. A. Creuse	121, 338
Compound, Medical, for consumption, &c.	T. W. Bethel	119, 301
Compound, Medical, for kidney diseases	R. Hawkins and A. A. Hill	117, 537
Compound, Medical, for the cure of cutaneous diseases	E. A. Shewell	121, 205
Compound, Medical, or corn-salve	J. McKee	119, 468
Compound, Medical, or cough-sirup	B. F. Burroughs	115, 698
Compound of vegetable alkaloids, Medical	G. W. Scollay	122, 065
Compound or bitters, Medical	S. R. Whitlow	113, 713
Compound or bitters, Medical	W. T. Sherwood	113, 938
Compound or bitters, Medical	M. Holst	116, 310
Compound or bitters, Medical	A. M. Loryea	116, 846
Compound or coffee antidote, Medical	E. D. De St. Cyr	121, 665
Compound or eye-balsam, Medical	W. Klingbeil	116, 199
Compound or eye-wash, Medical	P. Paul	121, 467
Compound or liniment, Medical	G. S. Wood	112, 201
Compound or liniment, Medical	G. H. Fairchild	118, 706
Compound or liniment, Medical	T. B. Randell	119, 179
Compound or pile-ointment, Medical	A. M. Irwin	120, 879
Compound or salve, Medical	M. Huddleston	112, 920
Compound, Preserving, for the hands, &c.	J. W. Osborne	111, 376
Compound, Roofing	H. Morrie	116, 983
Compound, Tanning	A. Hisey	114, 941
Compressing, straining, and molding plastic pyroxy-line, Apparatus for.	J. Brockway	113, 735
Compression-bib	W. Young	117, 233
Concave for thrashing-machines	C. S. Hall	117, 419
Concaves, Device for cutting	H. C. Rosin	118, 489
Concrete, &c., Machine for mixing	S. Putnam and T. Burt	111, 000
Concrete for pavements, &c., Mixer and heater for preparing.	H. Franke	121, 351
Condenser and feed-water heater for steam-engines ..	J. Dilworth and J. C. Rogers	111, 916
Condenser, Steam	A. Cail	119, 817
Condenser for illuminating-gas, Friction	W. H. St. John and S. O. Rockwell	113, 463
Condenser for oil-stills	H. W. Faucet and T. McGowan	117, 873
Condenser for rectifying-apparatus	A. Feubert	118, 601
Condenser for steam-engines	W. Craig and H. L. Brevoort	113, 021
Condenser, Gas	I. N. Stanley	113, 942
Condenser or cooler for alcoholic and other liquids.	J. R. Neil	119, 942
Condenser, Steam	W. Wright	116, 909
Condensers, Tube-fastening for	G. H. Reynolds	116, 098
Condenser, Surface	B. Holly	113, 668
Condenser, surface, Compound	W. A. Lighthall	116, 728
Confectioners' paste and other materials, Machine for making and breaking.	R. Duff	115, 039
Confectionery, Apparatus for the manufacture of	W. F. Goward	111, 638
Confectionery, Machine for mixing paste for	R. Duff	114, 423
Confectionery or cocoa-nut candy	H. N. and T. J. Harbach	113, 047

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Connecting-rod	J. W. Zinn	122, 095
Connection for railway-cars	J. R. Crabill	113, 633
Connector for telegraph-wires	G. W. Prescott	111, 246
Constipation, &c., Medical compound for treating	C. A. Simmons	121, 904
Consumption, Medical compound for cure of	J. E. Larkin	119, 620
Converting rotary into reciprocate motion by means of friction. Apparatus for	R. Sammer	113, 891
Converting wood or other fibrous material into pulp. Machine for	J. Bridge	115, 874
Cooking-apparatus	E. Sperry	117, 476
Cooking-apparatus	N. Gergen	121, 164
Cooking-apparatus, Steam	J. G. Covey	115, 437
Cooking stoves and ranges, Detachable magazine for	L. Bridge	112, 013
Cooler, Beer	C. W. Haug	111, 363
Cooler, Beer	G. M. Haszinger	115, 550
Cooler, Beer	C. L. Ridgway	115, 646
Cooler for liquids	J. W. Campbell, sr	114, 916
Cooler, Lard	A. E. Camp and C. L. Reid	119, 518
Cooler, Liquor	E. Wright	117, 712
Cooler, Milk	N. and R. E. Johnson	113, 362
Cooler, Milk	A. Northrop	113, 690
Cooler, Milk	J. F. Harly	115, 605
Cooler, Water	A. Putnam	111, 650
Cooler, Water	T. J. James	115, 736
Cooling and discharging beer and other liquids on draught. Apparatus for	J. M. Heiss	116, 033
Cooling and preserving. Apparatus for	C. E. Pike	120, 667
Cooling and preserving milk and other liquids. Apparatus for	D. E. and F. C. Simes	114, 985
Cooling-apparatus for beer, ale, &c.	T. Bergner and S. Zeisse	115, 015
Cooling, freezing, and preserving solids, liquids, and gases	D. E. Simes	112, 294
Coop for fowls	J. B. Smith	115, 494
Coopers' croze	V. Applegate, M. P. Jacobs, and S. F. Roby	112, 205
Coopers' croze	J. F. Applegate and C. Feiock	114, 089
Coping	C. Wilcox	120, 223
Coping for walls	D. M. Spragle	115, 653
Copper, Melting	J. Kintz	119, 365
Copper, Welding	C. L. Schurr and W. G. Rehbein	121, 009
Cops in spinning-machines, Apparatus for sizing the initial coils of	A. Pearson	116, 451
Copy-holder	H. R. Williams	112, 664
Copy-holder	A. P. Manard	121, 261
Copying-apparatus	W. J. Purcell	116, 351
Cord, Machine for covering	R. Lewis	113, 675
Cord, Machine for making	S. A. Boardman	118, 426
Cords or bands, Machinery for making	T. Unsworth and E. Whalley	115, 408
Core-barrel, Collapsing	W. Smith	111, 091
Cores, Collapsing	A. T. Brodie and R. R. Smith	111, 173
Cores, Supporting	E. B. Phillips	111, 775
Cork-cutting machine	G. Purves	115, 269
Cork-puller	C. T. Simpers	120, 530
Cork-screw attachment	W. Dickson	115, 585
Cork-screw, cork-puller, and can-opener combined	J. Harrison	117, 278
Corn and cotton scraper	C. Marsh, 2d	112, 161
Corn-dropper	J. H. Gross	111, 260
Corner for photographic plate-holders	J. L. Winner	120, 141
Corn-fodder, &c., Machine for cutting and grinding	B. and D. H. Harnish	115, 234
Corn-ground marker	F. B. Kendall	116, 538
Corn-harvester	C. S. Stull	112, 191
Corn-husker	A. Merwin	110, 772
Corn-husker	E. H. Carver and G. M. Baker	113, 495
Corn-husker	J. Stengel and C. C. Davey	117, 011
Corn-husker	D. Sager	119, 654
Corn-husker, Field	J. H. Whitney and W. W. Marsh	120, 689
Corn-husker, Hand	J. G. Johnson	117, 296
Corn-husker, Hand	C. M. O'Hara	117, 670
Cornice for window-curtains	W. Lloyd	122, 037
Corn, Machine for crushing	A. Bolander	115, 168
Corn, Machine for husking	J. Russell	112, 967
Corn, Machine for shelling	J. Miller and N. DuBrul	115, 227
Corn, Machine for shelling	H. Lippold	115, 139
Corn-marker	A. G. Brassfield	115, 584
Corn picking and husking machine	S. R. Kenyon	113, 174
Corn picking and husking machine	S. R. Kenyon	121, 384
Corn planter and cultivator, Combined	F. Underwood	112, 516
Corn planter and cultivator, Combined	E. Braggins	116, 678
Corn-planter and fertilizer-distributor, Combined	C. W. Barrick	117, 369
Corn-planter, Hand	J. M. Harrison	111, 202
Corn-planters. Seed-tube for	L. Scofield	116, 998

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Corn-popper	W. F. Collier	111, 319
Corn-popper	W. J. Johnson	116, 600
Corn-salve	A. Seabold	113, 456
Corn-shaving machine	E. Watts	118, 564
Corn-sheller	F. Nelson	111, 139
Corn-sheller	S. C. Schofield	115, 646
Corn-sheller	L. Day	115, 939
Corn-sheller	L. T. Hulbert and A. P. Teachout	116, 192
Corn-sheller	A. H. Patch	116, 627
Corn-sheller	G. and H. O'Connor	116, 987
Corn-sheller	H. W. Cornell	117, 607
Corn-sheller	D. C. Guttridge	118, 605
Corn-sheller	A. B. Thompson	120, 549
Corn-sheller	A. B. Smith	120, 909
Corn-sheller, Hand	C. M. O'Hara	114, 331
Corn-sheller, Hand	A. Bryhn and W. T. Farre	116, 262
Corn-sheller, Hand	C. M. O'Hara	117, 105
Corn shelling and cleaning machine	L. Kamp	111, 350
Corn-stalks, Machine for cutting	J. Wood	111, 709
Cornucopias, Transparent	W. Loshe	121, 791
Corpse-preserver	H. M. Diggins	113, 861
Corpse-preserver	M. Margerum	114, 315
Corpse-preserver	J. T. Carpenter	114, 407
Corpse-preserver	G. W. Nash	115, 229
Corpse-preserver	J. E. Cox	118, 346
Corpse-preserving case	J. Gravenstine	117, 407
Corset	M. P. Bray	113, 392
Corset	T. S. Gilbert	113, 419
Corset	T. F. Hamilton	115, 954
Corset	C. A. Griswold	116, 585
Corset	R. De Baum	119, 583
Corset	C. L. Hamlin	120, 967
Corset and skirt-supporter, Combined	L. Spigelmyer	121, 210
Corset and skirt-supporter, Combined	M. J. C. Vanorstrand	122, 086
Corset-fastenings, Supporting busk for	M. E. Bulkley	122, 152
Corset-looms, Take-up for	J. Kuttner	112, 356
Corset, Skeleton	T. S. Gilbert	113, 418
Corset, Skirt-supporting	S. Young	120, 808
Corset-springs, Machine for punching	P. Brooks	113, 737
Cotton and corn planter, Combined	L. A. Perault	112, 486
Cotton and corn stalk chopper	J. H. Gatling	114, 127
Cotton-bale ties, Machine for adjusting	M. Martin	114, 581
Cotton-balls, Process for utilizing immature	J. Hughes	115, 299
Cotton-chopper	J. R. Wood	111, 346
Cotton-chopper	C. B. Douglas	113, 640
Cotton-chopper	E. B. Turnipseed	114, 889
Cotton-chopper	A. G. Powell	122, 057
Cotton-chopper and grain-cultivator	D. Mosely	112, 481
Cotton chopper, scraper, and cultivator	F. A. Leonhard	118, 951
Cotton chopper, scraper, &c., Combined	W. C. Bibb	112, 209
Cotton-cleaner	Z. B. Sims	116, 764
Cotton-cropper	D. F. Welsh	111, 023
Cotton-gin	F. M. McMeekin	115, 226
Cotton-gin	O. W. Massey	116, 615
Cotton-gin	W. F. Bowen	116, 924
Cotton-gin	J. Du Bois	117, 058
Cotton-gin	C. N. Andrews	119, 001
Cotton-gin	W. L. Henderson	121, 365
Cotton-gin attachment	H. P. Harrell	119, 140
Cotton-gin feeder	N. Hoggatt	117, 074
Cotton-gin saw	T. C. Craven	115, 441
Cotton-picker	W. Goodwin and S. G. Niles	113, 159
Cotton-picker	J. Hughes	113, 170
Cotton-picker	B. J. Dresser and J. L. Buskett	116, 694
Cotton-planter and chopper, Combined	A. R. Nixon	116, 741
Cotton-planter and guano-distributor, Combined	J. H. Nichols	112, 169
Cotton-planter and manure-distributor	N. Donaldson	110, 636
Cotton-press and horse-power, Combined	J. M. Albertson	119, 731
Cotton-scraper	T. H. Trantham	113, 367
Cotton scraper and harrow	J. M. P. Lyon	110, 988
Cotton scraper, huller, and cultivator	C. Marsh, 2d	113, 320
Cotton-seed huller	H. C. Bradford	111, 034
Cotton-seed oil, Treating, to render it drying	R. Farley	111, 444
Cotton-seed planter and cultivator, Combined	J. A. Wright	113, 383
Cotton-seed planter and guano-distributor	W. W. Croom	110, 832
Cotton-seed planter and guano-distributor, Combined	L. Ganti	110, 644
Cotton-seed, Treating	J. J. Powers	112, 628
Cotton, Tie for metallic bands or hoops used in baling	G. Brodie	116, 925
Cotton-tie stretcher	S. Mather	118, 254
Cotton-waste and other fibrous materials, Cleaning	H. M. Baker	120, 564
Cotton-waste, &c., Apparatus and process of cleaning	G. W. Sylvester	110, 590

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Cough-mixture for use in candies.....	L. Violet.....	115, 790
Coughs, colds, &c., Medical compound for.....	J. D. Richmond, jr.....	117, 930
Coughs, colds, &c., Medicine for.....	C. P. Crossman.....	115, 032
Counterpoise gun-carriage.....	J. G. Foster.....	114, 430
Counterpoise gun-carriage.....	J. G. Foster.....	119, 924
Countersink.....	F. H. Palmer.....	112, 176
Countersink.....	S. L. Abbott.....	117, 237
Coupler, Car.....	T. Ray.....	115, 104
Coupling, Car.....	J. Mount.....	110, 776
Coupling, Car.....	G. H. Weeks.....	110, 880
Coupling, Car.....	J. Boothroyd.....	111, 170
Coupling, Car.....	J. Mayben.....	111, 224
Coupling, Car.....	D. H. Ball.....	111, 419
Coupling, Car.....	L. S. Starrett.....	111, 695
Coupling, Car.....	J. W. Musser and R. Carkhuff.....	111, 767
Coupling, Car.....	S. H. and G. A. Reed.....	111, 972
Coupling, Car.....	G. Brenner and G. T. Polk.....	112, 536
Coupling, Car.....	S. Gregory.....	113, 160
Coupling, Car.....	G. A. Spangler.....	113, 462
Coupling, Car.....	L. J. Bosworth.....	113, 730
Coupling, Car.....	W. B. Rogerson and H. Beyea.....	113, 932
Coupling, Car.....	J. W. Jones.....	114, 015
Coupling, Car.....	E. L. Fareman.....	114, 124
Coupling, Car.....	S. S. Sartwell.....	114, 353
Coupling, Car.....	W. Johnston.....	114, 566
Coupling, Car.....	J. Shepler.....	114, 612
Coupling, Car.....	W. K. Wallace and E. C. Rutledge.....	114, 732
Coupling, Car.....	E. Bolman and G. S. W. Clarke.....	114, 755
Coupling, Car.....	E. M. George.....	114, 797
Coupling, Car.....	W. Richards, jr.....	115, 122
Coupling, Car.....	H. Plumb.....	115, 236
Coupling, Car.....	J. Royal, M. A. Lentz, and J. M. Diebert.....	115, 242
Coupling, Car.....	J. B. Vedder.....	115, 394
Coupling, Car.....	W. Callow, jr.....	115, 433
Coupling, Car.....	W. Nichols.....	115, 507
Coupling, Car.....	A. Porter.....	115, 517
Coupling, Car.....	J. C. Rupp and S. Ott.....	115, 643
Coupling, Car.....	E. Campbell.....	115, 819
Coupling, Car.....	J. B. Harper.....	115, 845
Coupling, Car.....	T. Lanstone.....	115, 964
Coupling, Car.....	H. Trefry.....	116, 238
Coupling, Car.....	J. W. Barrett.....	116, 397
Coupling, Car.....	H. C. Gilliland.....	116, 431
Coupling, Car.....	G. E. Darling and M. Heus.....	116, 566
Coupling, Car.....	H. R. Howe.....	116, 595
Coupling, Car.....	D. H. Ball.....	116, 663
Coupling, Car.....	H. W. Earl.....	116, 696
Coupling, Car.....	T. Morgan.....	116, 738
Coupling, Car.....	J. H. Bull.....	116, 801
Coupling, Car.....	J. W. Gillam.....	117, 067
Coupling, Car.....	P. C. Barlow.....	117, 368
Coupling, Car.....	W. V. Perry.....	117, 453
Coupling, Car.....	T. W. Sparks.....	117, 475
Coupling, Car.....	P. W. Davis.....	117, 992
Coupling, Car.....	W. C. Bibb.....	118, 184
Coupling, Car.....	C. M. Colby.....	118, 436
Coupling, Car.....	O. L. Smith and J. F. Utton.....	118, 824
Coupling, Car.....	J. D. Barnard.....	118, 836
Coupling, Car.....	D. L. McComas.....	118, 957
Coupling, Car.....	J. Timms and W. P. Brown.....	119, 097
Coupling, Car.....	C. L. Horack.....	119, 359
Coupling, Car.....	H. R. Robbins.....	119, 409
Coupling, Car.....	J. H. Kenworthy.....	120, 199
Coupling, Car.....	R. H. Dowling and E. S. Perry.....	120, 726
Coupling, Car.....	J. M. and J. Enos.....	121, 047
Coupling, Car.....	J. B. Heverling.....	121, 051
Coupling, Car.....	H. H. Morgan and A. Gerry.....	121, 252
Coupling, Car.....	A. S. and H. H. Hallett.....	121, 617
Coupling, Car.....	G. W. Putnam.....	121, 660
Coupling, Car.....	T. B. Tremper.....	121, 690
Coupling, Car.....	J. B. Tracy.....	121, 823
Coupling, Car.....	W. H. Skidmore.....	122, 070
Coupling, Car.....	F. A. Illingworth.....	122, 175
Coupling, Car.....	F. Nalley.....	122, 189
Coupling, Carriage.....	J. Hollinger.....	113, 884
Coupling for railway-cars.....	H. Dubs and S. G. G. Copestake.....	112, 431
Coupling for shaftings.....	S. A. Smith.....	111, 152
Coupling for shafts for mills.....	W. Kean.....	111, 550
Coupling for vehicles.....	L. C. Sims.....	121, 675
Coupling-hook for coal-cars.....	F. Bush.....	119, 117
Coupling, Hose.....	J. J. Lovel.....	114, 575

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentec.	No.
Coupling, Hose.....	L. Wharton.....	115, 917
Coupling, Leader-pipe.....	J. Demarest.....	119, 127
Coupling, Lightning-rod.....	D. W. Demorest.....	120, 251
Coupling, Pipe.....	J. B. Fink.....	111, 187
Coupling, Pipe.....	J. B. Ramp.....	112, 958
Coupling, Pipe.....	W. D. Alford.....	114, 511
Coupling, Pipe.....	V. D. Anderson.....	114, 903
Coupling, Pipe.....	J. F. Andrews.....	117, 960
Coupling, Pipe.....	C. Burger.....	121, 929
Coupling, Platform-spring.....	B. T. Parcels and J. L. Hedges.....	113, 335
Coupling, Railway.....	L. Ibeck.....	120, 746
Coupling, Railway-car.....	L. and J. K. Huddle.....	111, 123
Coupling, Railway-car.....	M. B. Smith.....	111, 985
Coupling, Railway-car.....	P. Campbell.....	114, 758
Coupling, Railway-car.....	E. D. Meier.....	115, 697
Coupling, Railway-car.....	G. H. Merriam.....	117, 909
Coupling, Railway-car.....	J. Temple.....	119, 196
Coupling, Railway-car.....	G. C. Sherman.....	119, 416
Coupling, Railway-car.....	E. M. Van Hoesen and N. H. Brown.....	119, 431
Coupling, Railway-car.....	S. D. Pratt.....	119, 475
Coupling, Railway-car.....	J. B. Tracy.....	119, 897
Coupling, Railway-car.....	W. F. Grassier.....	120, 430
Coupling, Railway-car.....	G. W. McEuen and C. Eves.....	120, 526
Coupling, Railway-car.....	A. A. Atwater.....	120, 610
Coupling, Safety.....	F. W. Robinson.....	117, 333
Coupling, safety, Shaft.....	J. Valleley and F. A. Wise.....	117, 700
Coupling, Shaft.....	F. G. Shepard.....	112, 641
Coupling, Shaft.....	D. and S. Knickerbocker.....	112, 817
Coupling, Shaft.....	J. Sherry.....	112, 972
Coupling, Shaft.....	J. H. Blessing.....	113, 728
Coupling, Shaft.....	S. Broadbent.....	114, 402
Coupling, Shaft.....	E. G. Short.....	117, 823
Coupling, Shaft.....	J. Ochsmuer.....	118, 474
Coupling, Shaft.....	J. H. Oliver.....	118, 476
Coupling, Shaft.....	A. V. Pitts.....	118, 472
Coupling, Shaft.....	J. Eisele.....	120, 372
Coupling, Shaft.....	T. A. Weston.....	120, 666
Coupling, Telegraph-wire.....	A. Cary.....	116, 021
Coupling, Thill.....	C. W. Griffith.....	111, 118
Coupling, Thill.....	W. B. Melouney.....	111, 556
Coupling, Thill.....	L. S. Rowe.....	111, 574
Coupling, Thill.....	T. Burr.....	112, 318
Coupling, Thill.....	N. J. Clark.....	112, 783
Coupling, Thill.....	B. F. Horton.....	112, 811
Coupling, Thill.....	C. Twombly.....	112, 989
Coupling, Thill.....	D. A. Johnson.....	113, 525
Coupling, Thill.....	G. I. Bradley.....	114, 258
Coupling, Thill.....	J. H. Fleming.....	115, 184
Coupling, Thill.....	A. Bedford.....	116, 666
Coupling, Thill.....	E. Warren.....	116, 898
Coupling, Thill.....	J. H. Jennings.....	116, 903
Coupling, Thill.....	F. B. Prindle.....	117, 328
Coupling, Thill.....	S. Slack.....	117, 937
Coupling, Thill.....	M. C. and D. B. Graves.....	118, 009
Coupling, Thill.....	J. C. Moore.....	118, 381
Coupling, Thill.....	A. O. Nelson.....	118, 383
Coupling, Thill.....	W. G. Foster.....	118, 600
Coupling, Thill.....	T. H. Ryder.....	113, 133
Coupling, Thill.....	C. Bridgman.....	119, 302
Coupling, Thill.....	J. Childs.....	119, 446
Coupling, Thill.....	E. D. Johnson and E. A. Cowan.....	119, 616
Coupling, Thill.....	C. W. Saladee.....	120, 001
Coupling, Thill.....	C. W. Saladee.....	120, 002
Coupling, Thill.....	J. W. Oulton.....	120, 091
Coupling, Thill.....	O. Taekmann.....	120, 124
Coupling, Thill.....	T. W. Porter.....	120, 456
Coupling, Thill.....	J. Hale.....	120, 640
Coupling, Thill.....	H. S. Cox.....	121, 593
Coupling, Thill.....	L. D. Belnap.....	122, 146
Coupling, Thill.....	E. Batwell.....	122, 213
Coupling, Trace.....	J. R. Finley.....	121, 350
Coupling, Universal cog-wheel.....	E. Smith.....	110, 938
Coupling, Universal safety.....	G. H. Zschech.....	120, 145
Coupling, Wagon.....	A. Fassett.....	115, 453
Coupling, Wagon-shaft.....	S. Barnum.....	119, 494
Coupling, Whiffletree.....	H. Crocker, jr.....	114, 269
Cover for bins.....	A. S. Maxwell.....	111, 303
Cover for cones of hat-body formers.....	F. Degen and E. R. Parsil.....	118, 213
Cover for fruit-baskets.....	A. S. Dyekman.....	121, 238
Cover for gas-retorts.....	A. F. Havens.....	122, 250
Cover for openings in side-walks.....	W. Dale.....	112, 428

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Cover for the lenses of photographic cameras	O. W. Noble	117, 318
Covering for sausages and other meats	M. W. Brown	113, 396
Covering for whips	B. W. Crowson	121, 761
Cow-milker	E. A. Hewitt	111, 932
Cow-milker	W. Reading	120, 100
Cow's tail-holder	W. H. Gray	112, 587
Cracker-machine	W. Cairns	111, 315
Cracker-machine	G. R. Skillman	113, 356
Cradle	A. H. Ordway	110, 931
Cradle	R. W. Myers	112, 271
Cradle	J. B. Charlton	113, 497
Cradle	D. O. Parker	117, 809
Cradle, Folding	T. W. Moore	116, 556
Cradle for children	W. J. Stowell	111, 929
Cradle, Portable	W. R. Evans	118, 918
Cranberries, Preserving	J. W. Campbell	117, 256
Crane	J. W. Middleton	112, 829
Crank-gearing	T. J. McGowan	117, 312
Crank-motion	E. Quinn	116, 487
Crank-pins, Machine for turning	M. G. Wood	113, 959
Crank, ratchet, and brake, Combined	B. B. McElrath	115, 831
Cravat-holder	J. N. Thomson	116, 510
Crib, Children's	G. W. Ennis	112, 570
Crib or cradle	W. T. Hazard	114, 292
Crib, Reversible	A. E. Eaton	115, 042
Crimping-machine	M. R. Lemman and W. A. L. Kirk	119, 234
Croquet-arch	F. M. Clark	117, 865
Cross-cut saw	W. Clemson	118, 198
Croze and howel, Coopers'	A. Busenger	119, 570
Crozing-machine	W. R. Middleton	115, 974
Crucible for melting metals, &c	R. Yeilding	120, 807
Crucibles, glass melting-pots, &c., Composition for making	W. A. Fischer	120, 579
Crude or pig-irons, Process and apparatus for the treatment of	H. Bessemer	117, 507
Cuinet-stand	J. W. Ellis	111, 920
Crusher, Vegetable	R. Daniels	111, 913
Crushing and grinding rocks, phosphates, &c., Machine for	F. J. Kimball	114, 303
Crushing and hulling attachment to grinding-mills	G. C. Hoenstein and C. T. Glaeser	111, 061
Crutch	E. T. Pearl	121, 254
Crutch-handle	S. Kregar	116, 603
Culinary utensil for broiling and frying	John C. Nobles	120, 769
Cultivator	J. Sattison	110, 632
Cultivator	W. A. Dryden	110, 836
Cultivator	G. W. Bronson	111, 037
Cultivator	W. B. Read	111, 250
Cultivator	H. M. Rose	111, 256
Cultivator	J. Case	111, 432
Cultivator	M. Sattley	111, 781
Cultivator	W. D. Stroud	112, 862
Cultivator	F. N. Welden	112, 994
Cultivator	L. W. and R. G. Conner	113, 019
Cultivator	M. Stoll	113, 109
Cultivator	D. Edwards	113, 143
Cultivator	A. H. Kennedy	113, 306
Cultivator	J. Gerber and H. Brown	113, 511
Cultivator	A. Hunt	113, 520
Cultivator	I. N. Pyle	114, 040
Cultivator	M. P. Simpson	114, 483
Cultivator	J. H. Conley	114, 767
Cultivator	L. Walker	115, 138
Cultivator	T. F. Capp	115, 159
Cultivator	C. Furst	115, 459
Cultivator	J. E. Reed	115, 771
Cultivator	P. Maier	115, 875
Cultivator	T. B. Roberts	116, 100
Cultivator	T. E. C. Brinly	116, 147
Cultivator	J. J. Thompson	116, 776
Cultivator	P. O. Baldwin	117, 034
Cultivator	J. W. Spangler	117, 215
Cultivator	N. J. Harris	117, 279
Cultivator	D. Edelman	117, 524
Cultivator	H. P. Kynett	117, 547
Cultivator	A. H. Myers	117, 803
Cultivator	W. J. Arrington	117, 961
Cultivator	T. J. Ellis	118, 000
Cultivator	E. Reese	118, 053
Cultivator	S. B. Shank	118, 159
Cultivator	B. C. Blomsten	118, 186
Cultivator	J. S. Fleming	118, 522

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Cultivator	G. W. Owens	118, 549
Cultivator	A. Tompkins	118, 562
Cultivator	E. Pickard and J. L. Harrell	118, 946
Cultivator	J. Waddell	119, 206
Cultivator	C. Escudier	119, 588
Cultivator	J. S. Nolan	119, 639
Cultivator	D. B. Eberly	119, 750
Cultivator	F. L. Perry	119, 786
Cultivator	H. Weld	119, 904
Cultivator	J. T. Brittain	120, 028
Cultivator	P. R. Jenkins	120, 073
Cultivator	A. C. Smith	120, 113
Cultivator	J. W. Hatcher	120, 274
Cultivator	J. H. Tomlinson	120, 684
Cultivator	W. C. Wilson	120, 692
Cultivator	J. Fanning and F. Legler	120, 732
Cultivator	S. Snider	120, 789
Cultivator	A. C. Taylor	120, 794
Cultivator	A. M. Manny	121, 114
Cultivator	A. M. Manny	121, 115
Cultivator	J. and G. W. Ansley	121, 267
Cultivator	W. T. Jordan	121, 381
Cultivator	W. M. Watkins	121, 439
Cultivator	D. W. Bowman	121, 484
Cultivator	M. L. Gorham	121, 693
Cultivator	J. Mallon and H. Von Puhl, jr	121, 794
Cultivator	D. Z. Evans	122, 240
Cultivator and harrow, Combined	J. Maxton	111, 857
Cultivator and horse-hoe	J. W. Blake	121, 228
Cultivator and planter, Combined	P. Burress	110, 736
Cultivator and shovel-plow	G. W. Parsons and W. S. Finney	114, 964
Cultivator and shovel-plow	T. F. Hamilton	118, 362
Cultivator and weeding-machine	M. Johnson	115, 213
Cultivator, Combined corn and cotton	W. C. Gaines	116, 425
Cultivator, Corn	G. D. Brown	115, 427
Cultivator, Cotton	M. B. Lannar	118, 371
Cultivator, Cotton	T. Dale	119, 015
Cultivator, Cotton	R. H. Prunelle	119, 644
Cultivator, Garden	C. F. Ruggles	115, 526
Cultivator, Hand	D. Boggs and H. Rohs	119, 261
Cultivator, marker, and coverer, Combined	H. J. Coyle	117, 989
Cultivator, Meadow	F. P. Davenport	112, 130
Cultivator, Seeding	N. S. Thompson	114, 881
Cultivator, Sulky	H. P. Jordan	110, 853
Cultivator, Sulky	R. B. Robbins	112, 496
Cultivator, Sulky	N. Whitehall	118, 567
Cultivator, Sulky	P. Hewitt	120, 435
Cultivator-teeth	L. Daley	118, 208
Cultivator-teeth, Rolled steel-plate for making	W. W. and D. D. Skinner	119, 419
Cultivator-teeth to beams, Attaching	M. F. Louth and O. H. Porter	117, 092
Cultivator, Walking	A. Friberg	111, 627
Cultivator, Walking	J. Vanlavanee and H. Smith	112, 990
Cultivator, Wheel	J. A. Viars	119, 205
Cultivator, Wheel	W. M. Pitts	119, 404
Cultivator, Wheel	T. C. Sebring	121, 670
Culvert, Iron	M. G. Freeman	114, 622
Cup for grain-drills, &c	J. P. Zeller	114, 384
Cup for kerosene lamps	N. L. Bradley	111, 430
Cup of bobbin-winding machines	J. W. Vaughan	115, 393
Curbing for excavations	H. Whitestone	110, 882
Curculio-catcher	F. J. Claxton and C. D. Stevens	113, 855
Curd-strainer	R. and S. Mason	117, 093
Current water-wheel	H. B. Sinclair	113, 586
Carriers' slicker	G. T. Collins	115, 709
Currycomb and brush	H. C. Smith	119, 659
Curtain	R. Nenninger and F. Bräuer	112, 067
Curtain-cord retainer	H. Holcroft	114, 560
Curtain-fastener	W. H. Morse	110, 863
Curtain-fastener, Carriage	H. M. Bidwell	121, 076
Curtain-fastener, Reversible	H. Binder	118, 781
Curtain-fastening, Carriage	A. B. Clark	120, 493
Curtain-fixture	W. H. Tambling	110, 939
Curtain-fixture	R. Vose	111, 405
Curtain-fixture	C. M. Brown and C. L. Gates	111, 723
Curtain-fixture	P. W. Phillips	111, 967
Curtain-fixture	C. Robin	112, 383
Curtain-fixture	W. C. Kennedy	112, 814
Curtain-fixture	W. Campbell	113, 852
Curtain-fixture	P. W. Phillips	114, 036
Curtain-fixture	E. Turner	114, 494
Curtain-fixture	B. Moser	114, 843

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Curtain-fixture	L. C. Prindle	114, 852
Curtain-fixture	N. Campbell	114, 917
Curtain-fixture	N. Campbell	114, 918
Curtain-fixture	W. C. Wilcox	115, 402
Curtain-fixture	B. Moser	116, 343
Curtain-fixture	J. Norman	116, 624
Curtain-fixture	C. Buckley	116, 929
Curtain-fixture	L. L. Sawyer	116, 996
Curtain-fixture	J. E. Baum	117, 037
Curtain-fixture	J. E. Baum	117, 038
Curtain-fixture	T. N. Webb	118, 030
Curtain-fixture	T. N. Webb	118, 081
Curtain-fixture	A. H. Knapp	118, 725
Curtain-fixture	J. D. Legg	119, 158
Curtain-fixture	J. E. Baum	119, 299
Curtain-fixture	H. Clayton	119, 321
Curtain-fixture	W. N. Bulkley	119, 568
Curtain-fixture	N. Campbell	119, 740
Curtain-fixture	F. Hobart	119, 983
Curtain-fixture	A. Roelofs	120, 168
Curtain-fixture	A. Roelofs	120, 538
Curtain-fixture	W. R. Smith	120, 787
Curtain-fixture	P. W. Phillips	120, 997
Curtain-fixture	J. Gray	121, 242
Curtain-fixture	C. Eaton	121, 342
Curtain-fixture	T. N. Webb	122, 294
Curtain-fixture, Window	T. C. Williams	112, 876
Curtain, Photographers'	L. G. Bigelow	119, 111
Curtain-roller, Window	W. Gorton	117, 068
Cushion, Billiard-table	H. W. Collender	114, 410
Custard and cake baker	C. L. Sweatt and G. A. Huntoon	111, 012
Cuspadore	E. A. Heath	119, 705
Cuspadore	E. A. Heath	119, 706
Cutlery	M. W. Lyman	110, 986
Cutlery	H. T. Reeves	120, 774
Cut-nail machine	A. W. Prall and J. Morgan, jr.	116, 091
Cut-nail machine	D. J. Farmer	118, 355
Cut-nail machine	D. J. Farmer	118, 356
Cut-nail machine	F. Davidson	120, 501
Cut-off attachment to slide-valves	T. Sault	113, 101
Cut-off, Automatic water-spout	E. Stewart	113, 108
Cut-off for blast-furnaces	H. Davies	113, 745
Cut-off for engines for water-works, Variable	B. Holly	114, 010
Cut-off for rain-water pipes	C. Avery and J. W. Wetmore	117, 493
Cut-off for steam-engines	W. Watts and F. A. Phelps	110, 943
Cut-off for steam-engines	W. B. Cross	111, 180
Cut-off for steam-engines	W. Wright	119, 908
Cut-off for steam-engines, Adjustable	J. Rees	114, 601
Cut-off for steam-engines, Variable	W. B. Cross	117, 747
Cut-off for water-conductors	H. Myers, jr.	115, 977
Cut-off valve for steam-engines	G. S. Young	110, 813
Cut-off valve gear, Regulating	S. W. Robinson	114, 861
Cut-off valves, Device for operating	K. H. Loomis	114, 574
Cut-off, Water	R. M. Bixby	111, 720
Cut-off, Water	W. Phipps	118, 639
Cut-off, Water	P. B. Peters	121, 960
Cutter, Bolt	W. E. Yeager	114, 383
Cutter, Bolt	A. W. Owen and M. E. Lilley	116, 478
Cutter, Bolt	J. R. Brown	116, 547
Cutter, Bolt	J. Whittaker	117, 495
Cutter, Bolt	J. Johnson	119, 231
Cutter, Bolt	J. R. Brown	120, 149
Cutter, Bread	I. S. Bunnell	119, 569
Cutter, Bread	C. Lemke	119, 861
Cutter, Bung	A. W. C. Sternberg	115, 253
Cutter, Button-hole	J. G. Powell	114, 598
Cutter, Button-hole	W. A. Morse	117, 100
Cutter, Circular	R. H. Dorn	115, 587
Cutter, circular and elliptical, Combined	W. S. Deeds	117, 611
Cutter, Corn-stalk	J. W. Cornell	117, 746
Cutter, Corn-stalk	T. A. Galt and G. S. Tracy	121, 353
Cutter, Feed	W. Dahlem	110, 834
Cutter, Feed	J. H. Bradley	111, 035
Cutter, Feed	C. Kemper	111, 065
Cutter, Feed	J. R. Whittemore	111, 594
Cutter, Feed	J. Critey and W. Gilbreath	111, 819
Cutter, Feed	H. A. Buck	112, 117
Cutter, Feed	J. B. and W. McClinton	112, 265
Cutter, Feed	J. Seaman	113, 579
Cutter, Feed	C. R. Donner	117, 521
Cutter for molding-machines	E. Benjamin	121, 447
Cutter for nail-cutting machines	E. Bless	110, 624

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Cutter, Grain	E. H. Woodsum	114, 079
Cutter, Harvester	T. Garrick	112, 532
Cutter, Harvester	H. Cutler	112, 692
Cutter, Harvester	W. G. Kenyon	113, 175
Cutter, Harvester	W. G. Oxer	119, 170
Cutter-head	A. L. Sweet	113, 464
Cutter-head	J. V. Woolsey	117, 850
Cutter-head	E. B. Hayes	118, 365
Cutter-head	C. E. McBeth	119, 632
Cutter-head for molding-machines	M. W. Clark	118, 907
Cutter-head for wood-working machines	E. P. Halstead	118, 931
Cutter, Meat	J. S. Artley	110, 721
Cutter, Meat	H. B. Murphy	111, 670
Cutter, Meat	F. G. Siemers	115, 937
Cutter, Meat and vegetable	E. Covert	115, 579
Cutter, Meat and vegetable	A. R. Silver	117, 003
Cutter, Paper	J. Worell	115, 922
Cutter, Peg	W. M. Watt	117, 839
Cutter, Photograph	S. W. Robinson	121, 198
Cutter, Picket	J. W. Clark	113, 629
Cutter, Pipe	D. Harrison	114, 939
Cutter, Pipe	E. S. Moulton	116, 210
Cutter, Pipe	G. W. Tower	116, 590
Cutter, Plug, for wood-workers	D. S. Kniffen	117, 786
Cutters for barbed nails, Manufacture of	E. Riley	121, 964
Cutters for nail-machines, Swage for forming	E. Bless	115, 563
Cutter, sod, Rotary	J. Pool	116, 748
Cutter, Stalk	J. Babcock, J. F. Stilson, and J. C. Leidy	114, 252
Cutter, Stalk	M. K. Lewis and J. Munger	114, 308
Cutter, Stalk	E. A. Wright	118, 175
Cutter, Strap	R. Crocker	119, 178
Cutter, Straw	B. C. Blomston	112, 113
Cutter, Straw	P. P. Gross	112, 241
Cutter, Straw	A. Park	112, 484
Cutter, Straw	J. H. Bradley	114, 640
Cutter, Straw	J. H. Dickinson	116, 033
Cutter, Straw	J. W. Neal	118, 636
Cutter, Straw	B. F. Grimes	118, 926
Cutter, Straw	J. A. Cornish	119, 326
Cutter, Straw	J. K. O'Neil	120, 314
Cutter, Straw	H. Sells	120, 781
Cutter, Thread	J. J. Henry	115, 469
Cutter, Thread	J. J. McLoughlin	119, 383
Cutter, Tobacco	J. M. Aguayo	116, 136
Cutter, Tube	D. E. Eaton	111, 442
Cutter, Twine	J. Adt	116, 391
Cutter, Twine	C. C. Lewis	120, 652
Cutter, Vegetable	D. W. Hersey	111, 268
Cutter, Vegetable	F. Monnet	113, 188
Cutter, Vegetable	G. B. Massey	118, 035
Cutter, Vegetable	B. and D. W. Harnish	118, 235
Cutter, Vegetable	W. L. Heberling	118, 720
Cutter, Vegetable	H. Baldwin	119, 553
Cutter, Vegetable	C. C. G. Armerling	119, 733
Cutter, Welt and strap	C. Keniston	115, 741
Cutter, Wrapper	J. R. Tunnichliff	114, 887
Cutting and assorting playing-cards, Machine for	V. E. Manger	121, 117
Cutting and bending sheet-metal, Machine for	J. R. Maitland	114, 311
Cutting and punching shingle-bands, Machine for	J. S. Everitt and C. H. Avery	120, 634
Cutting-blocks, Machine for leveling	A. Davis	118, 912
Cutting oval tin bottoms, Machine for	J. Meinig	117, 095
Cutting, punching, and upsetting tires, Machine for	H. B. Sevey	117, 116
Cylinders, Boring-bar for facing the ends of	J. Flower	122, 243
Cylinders, toothed, Casting	H. W. Cornell	118, 693
D.		
Dam, Adjustable	J. A. Wood	117, 023
Damper	W. B. Hayden	119, 270
Damper, Stove-pipe	N. A. Boynton	116, 675
Damper, Stove-pipe	B. French	117, 762
Decanting-apparatus for oil-cans, Ventilating	W. Cleveland	117, 984
Decorating in gilt upon japanned metal surfaces	H. Petrie	121, 410
Dental fillings, Securing	C. H. Mack	114, 454
Dental-plate	S. Purvine and H. Smith	118, 484
Dental-plate from pyroxyline	I. S. and J. W. Hyatt, jr., and J. A. Perkins	113, 055
Dental-plate from pyroxyline, Manufacture of	J. Brockway	113, 736
Dental-plates, Apparatus for molding	J. W. and I. S. Hyatt	121, 552
Dental-plates, Atmospheric pressure attachment for	J. B. Beers	111, 168
Dental-plates, Atmospheric pressure attachment	J. P. Gillespie	115, 951
Dental-plates, Manufacture of	F. M. Shields	119, 245

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Dental-plates, Mode of forming air-chambers in.....	M. A. Boughton.....	111, 429
Dental-plates, Preparation and application of pyroxy-line for.	R. H. Winsborough.....	114, 242
Dental tongue-holder.....	F. M. Osborn.....	118, 386
Dentifrice.....	O. Danforth.....	111, 821
Deodorizing excrements.....	P. N. Goux.....	119, 756
Depilating hides and preserving wood.....	J. E. Siebel.....	116, 638
Depurator.....	F. C. Leland and S. W. Poland.....	113, 536
Derrick.....	W. M. and G. L. Howland.....	119, 612
Desk and bed combined.....	F. Hopf.....	117, 632
Desk and chair combined.....	A. A. Porter.....	120, 455
Desk and chair, School.....	A. S. Vaughan.....	110, 805
Desk and seat, School.....	C. J. Higgins.....	112, 038
Desk and seat, School.....	H. G. Sellman.....	114, 869
Desk and seat, School.....	G. H. Grant.....	115, 192
Desk and seat, School.....	A. M. Bodwell.....	118, 187
Desk and seat, School.....	J. F. Whiting and E. Fisher.....	118, 765
Desk and seat, School.....	W. Watson.....	121, 070
Desk and seat, School.....	W. P. Hood.....	121, 287
Desk and seat, School.....	J. S. Rankin.....	121, 470
Desk and table.....	A. Wibbert.....	120, 604
Desk, Cast-metal.....	D. Fitzgerald.....	121, 504
Desk, Folding.....	J. Milwain.....	111, 230
Desk for school-teachers, &c.....	W. C. Carter and J. P. Emery.....	119, 316
Desk, Office.....	H. Mott.....	119, 390
Desk or table attachment for chairs.....	C. L. Bligh.....	120, 234
Desk, School.....	J. Peard.....	115, 232
Desk, School.....	J. H. French.....	115, 839
Desk, School.....	H. B. Osborne and N. W. Hammon.....	116, 477
Desk, School.....	J. Long and E. Convers.....	117, 090
Desk, School.....	J. Russell.....	117, 467
Desk, School.....	A. O. Huffman.....	117, 633
Desk, School.....	J. Smith.....	118, 161
Desk, School.....	I. N. Peirce.....	121, 543
Desk, School.....	W. M. Brooke.....	122, 221
Desks, school, Device for supporting and connecting.....	J. S. Rankin.....	121, 471
Desks, school, Joint for.....	T. A. Galt and G. S. Tracy.....	118, 773
Desk, Stool.....	A. Schlag.....	119, 794
Desk, table, and shelf combined.....	L. H. Morrill and E. G. P. Smith.....	121, 886
Detecting and signaling fires, Means for.....	W. B. Watkins.....	113, 120
Detector, Low-water.....	L. L. Lee.....	116, 460
Detector, Low-water.....	G. B. Massey.....	118, 737
Device for hoists, Safety.....	P. J. Borger.....	114, 399
Device for locking-nut.....	J. M. Horton.....	119, 360
Device for securing the tines of hay-tedders.....	D. Kennedy.....	110, 856
Dial telegraph-apparatus.....	E. T. Gilliland.....	116, 429
Dial telegraph-apparatus.....	E. T. Gilliland.....	116, 430
Diaper-pin.....	W. C. Hockensmith.....	118, 533
Dice-apparatus, Mechanical.....	A. Klingenburg.....	121, 110
Die, Bolt-heading.....	P. Eley.....	113, 280
Die for cutting screws.....	J. Carroll.....	119, 445
Die for cutting screw-threads.....	J. J. Grant.....	120, 266
Die for forming carriage-clips.....	M. Seward.....	114, 051
Die for forging carriage-spring heads.....	J. H. Mason.....	116, 206
Die for forging king-bolts.....	F. B. Morse.....	115, 976
Die for forging, trimming, and shaping clips for carriages.	F. B. Morse.....	111, 668
Die for forming beefsteak-cutters.....	H. Thompson.....	116, 372
Die for forming carriage-shackles.....	H. M. Beecher.....	116, 012
Die for forming carriage-clips.....	W. W. Knowles.....	116, 455
Die for forming carriage-clips.....	W. W. Knowles and L. R. S. White.....	116, 456
Die for forming carriage head-blocks.....	W. Terrell.....	119, 286
Die for forming felly-plates.....	F. B. Morse.....	114, 026
Die for forming the heads of screw-eye bolts.....	E. H. Plant.....	118, 879
Die for making blanks for stove-pipe elbows.....	E. Norton.....	121, 807
Die for making carriage-clips.....	W. Noble.....	116, 345
Die for making carriage-steps.....	F. B. Morse.....	121, 803
Die for making covers of sheet-metal boxes.....	C. E. Russ.....	117, 932
Die for making felly-plates.....	A. N. Clark.....	111, 177
Die for making washers.....	G. W. Billings.....	116, 541
Die for manufacturing clip king-bolts.....	F. B. Prindle.....	119, 643
Die for manufacturing draw-head face-plates for railroad couplings.	J. T. Wilson.....	117, 954
Die for manufacturing followers for draw-bars of railroad couplings.	J. T. Wilson.....	117, 953
Die for ornamenting sheet-metal.....	C. Kaufman.....	111, 216
Die for taking impressions from cloth, &c.....	J. J. C. Smith.....	113, 699
Die, Heel.....	B. E. Fish and M. B. Stone.....	114, 121
Die-mold for composition articles.....	I. Smith.....	117, 826
Dies for forming horse-collar shells.....	J. W. Schwaner.....	110, 685
Dietetic compound from milk.....	V. A. Jagielski.....	117, 889

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Digging-machine.....	I. P. Tice.....	111, 404
Digitorium.....	M. Marks.....	117, 791
Dikes, Core for.....	J. C. Culver.....	120, 943
Dinner-pail.....	H. C. and W. W. Ketcham.....	120, 442
Dinner-plate cover.....	M. M. J. O'Sullivan.....	120, 995
Dip-pipes of gas-apparatus, Sealing.....	R. B. Chapman.....	117, 602
Dish-washer.....	H. B. Todd.....	114, 367
Dish-washer.....	W. H. Emery.....	119, 085
Dish-washer.....	W. L. Thompson.....	119, 953
Dish-washer.....	M. E. Lewis.....	120, 886
Dish-washing machine.....	H. C. Robertson.....	117, 568
Disinfecting and ventilating burial-vaults.....	B. F. Lyford.....	111, 358
Diarrhoea, Medicine for the cure of.....	R. A. Walton.....	115, 547
Disinfecting buildings, ships, &c., Process of.....	H. M. Wells.....	120, 355
Distilling, Apparatus for.....	E. Werner.....	119, 436
Ditcher and pipe-layer, Combined.....	J. I. Mettler.....	117, 441
Ditching-machine.....	I. Boas.....	114, 395
Ditching-machine.....	B. Rhett.....	117, 235
Ditching-machine.....	S. S. Wood.....	117, 848
Ditching-machine.....	D. Whitesell.....	119, 209
Ditching-machine.....	J. W. Metz.....	119, 653
Ditching-machine.....	O. F. Hale.....	119, 759
Ditching-machine.....	H. Carter.....	120, 711
Ditching-machine.....	F. Taylor.....	120, 836
Ditching-machine.....	J. Valentine.....	121, 737
Ditching-machine.....	E. T. Bussell.....	121, 846
Divider.....	C. M. Nichols.....	119, 875
Divider.....	A. A. Cook.....	121, 850
Dividing-wheel of weft-thread knitting-machines.....	H. Woodman.....	114, 077
Division-plate for cooking-stoves.....	S. C. Ewing.....	114, 428
Diving-apparatus.....	C. Wilson.....	119, 210
Dock, Dry.....	G. A. Albertson.....	112, 525
Dock, Floating.....	H. Van Keuren.....	117, 223
Document-case.....	C. S. Trevitt.....	115, 542
Doll.....	J. Lacmann.....	113, 532
Doll, Creeping.....	R. J. Clay.....	112, 550
Dolls, Creeping.....	G. P. Clarke.....	118, 435
Door.....	B. F. Barker.....	116, 010
Door and gate spring.....	M. F. Taber.....	116, 644
Door, Carriage.....	A. Wright.....	121, 922
Door-check.....	H. N. H. Lugin.....	110, 985
Door-check.....	C. Bird.....	112, 210
Door-check.....	L. S. Hicks.....	112, 455
Door-check.....	C. B. Anderson.....	112, 673
Door-check.....	G. W. Pagett.....	115, 768
Door-check.....	D. C. Smart.....	118, 063
Door-check.....	J. Pool.....	120, 533
Door-fastener.....	W. A. Howard.....	118, 942
Door-fastener, Adjustable.....	L. P. Barnes.....	110, 821
Door-fastening.....	J. A. Morris.....	116, 621
Door-fastening and alarm, Combined.....	O. Fisher.....	115, 724
Door for railway freight-cars.....	H. L. Clark.....	118, 514
Door for ranges.....	R. E. Deane and T. Shedd.....	110, 747
Door-hanger.....	T. Kent and J. S. Barker.....	117, 894
Door-hanger and rail.....	T. F. Hamilton.....	111, 342
Door-knobs to their spindles, Attaching.....	J. N. Karr.....	110, 977
Door-mat.....	N. Berkeley.....	113, 389
Door-mat.....	P. W. Neefus.....	115, 345
Door-plate.....	W. A. Caron.....	121, 703
Door-securer.....	D. Arndt.....	121, 980
Doors and shutters, Combined fastener and buffer for.....	W. C. Wendell.....	116, 379
Doors and windows, Fastener for.....	J. Z. Davis.....	115, 176
Doors, Construction of.....	W. C. James.....	117, 080
Door-securer.....	W. H. Caldwell.....	112, 320
Door-securer.....	B. F. Baer.....	115, 012
Door, Sliding.....	J. More.....	111, 468
Door, Sliding, and sash-guide.....	G. L. Waitt.....	114, 731
Doors, Spring-catch for.....	W. Glue.....	111, 196
Doors, Spring-hinge for.....	R. Adams.....	116, 002
Door-step.....	M. V. Doyle and J. Behel.....	115, 038
Door-stop.....	I. J. Wells.....	116, 654
Door, Stove.....	J. Van.....	116, 646
Double and whiffletrees, Open link for.....	N. C. Sample.....	111, 007
Double puppet-valve, Automatic.....	J. E. Prunty.....	122, 059
Double-tree.....	D. W. Kauffman.....	113, 895
Double-tree.....	M. Durnell and W. Milner.....	114, 116
Double-tree.....	A. Lomax.....	119, 777
Dough-board.....	N. B. Petterson.....	120, 394
Dough-kneader.....	H. H. Hawes.....	112, 707
Dough-kneader.....	W. Tyler.....	114, 993
Dough, Machine for sheeting.....	J. H. Shrote.....	117, 474

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Dovetailing-machine	H. E. Evarts	110, 642
Dovetailing-machine	J. M. Seymour	112, 502
Dovetailing-machine	D. Pomeroy	113, 560
Dovetailing-machine	E. Heath	114, 814
Dovetailing-machine	J. B. Ritchie	114, 859
Dovetailing-machine	C. S. Griffin and J. W. Wilkins	116, 178
Dovetailing-machine	J. B. Ritchie	117, 352
Dovetailing-machine	C. F. Branch and J. A. Haseltine	119, 113
Dovetailing-machine	O. J. Pennell and G. Zimmer	120, 594
Dovetailing-machine	A. Davis	121, 278
Dowel-brad, Double-headed and pointed	J. Sowle	116, 367
Draft-cock	W. P. Clark	121, 754
Draft device for three horses	O. W. Jones	111, 944
Draft-equalizer	W. Stevenson	114, 988
Draft-equalizer for three horses	H. F. Gerauld	112, 715
Draft-hook, Detachable	J. Nicholson	121, 464
Draft-pole for horse-cars	S. A. Otis	121, 656
Draft-regulator	A. L. Ide	116, 962
Drain and sewer pipes, Machine for molding	D. Copeland, jr	115, 030
Drainer for tumblers and dishes	P. W. Neefus	115, 344
Drain-pipe machine	J. W. Stockwell	116, 371
Drain-pipe machine	J. W. Stockwell	116, 643
Drain-pipe machine	C. W. Kennedy	116, 839
Drain-pipe machine	H. Bissell	116, 920
Drain-pipe machine	G. Richardson	118, 880
Drain-pipe machine	M. R. Pierce	120, 999
Drain-pipe machine	A. J. Davis	121, 160
Drain-pipes, Apparatus for carrying	D. W. Brown	112, 538
Drain-tile	A. W. Conley	111, 727
Drain-tile machine	H. Bissell	116, 668
Drain-tiles, bricks, &c., Compound for preserving	E. Milner	111, 133
Draw-bars or buffers, Method of making	J. T. Wilson	118, 322
Drawer	I. A. Howe	117, 885
Drawer-pull	C. H. Pierpont	111, 243
Drawers, Device for supporting	C. F. Langford	122, 178
Drawing-board	J. B. Franklin	117, 761
Drawing-frame	B. Moon	117, 098
Drawing-table	J. L. Ross and F. C. Hanson	122, 134
Drill-cylinder	C. S. Pattison	114, 193
Drum for heating and ventilating	R. Jennings	114, 013
Drum, Heating	C. W. Servoss	117, 820
Drums to shafts, Mode of attaching	B. G. Brooks	119, 504
Dry gas-purifier	E. Duffee	114, 275
Dumb-bell	E. Ballou	113, 966
Dumb-waiter	T. Lanston	112, 055
Dumping-apparatus	R. M. McGrath	115, 759
Dust-pan	H. Whittemore	112, 102
Dust-pan	F. L. Daniels and J. Russell	113, 985
Dust-pan	W. H. Grove	114, 351
Dust-pan	W. Westlake	118, 034
Dust-pan	W. M. Conger	114, 436
Dry-earth closet	W. H. Grove	114, 434
Drying-glue	J. L. Manning	117, 905
Drying-room	R. Dalrymple	119, 747
Dyeing and printing, Material called "ole izerine," for	A. Paraf	110, 994
Dyeing and printing textile fabrics	J. Lightfoot	111, 654
Dyeing, Compound for	F. Graupner	117, 620
Dynamometer	J. Emerson	116, 285

E.

Earth-closet	P. Malone	110, 959
Earth-closet	D. C. Hartman	111, 842
Earth-closet	E. Griffith	111, 926
Earth-closet	S. D. Newbro	112, 620
Earth-closet	J. Megratten	113, 186
Earth-closet	B. Ferris	113, 411
Earth-closet	H. Moule and J. Bannehr	114, 960
Earth-closet	R. A. Cannell	115, 024
Earth-closet	C. A. Wakefield	115, 256
Earth-closet	R. A. Cowell	115, 580
Earth-closet	W. J. Bradshaw	116, 015
Earth-closet	W. A. Jordan	116, 320
Earth-closet	M. E. Doolittle	118, 795
Earth-closet	J. M. Loewenstein	119, 376
Earth-closet	C. D. Holmes	119, 610
Earth-closet	W. J. Bradshaw	120, 367
Earth-closet	R. R. Strain	121, 068
Earth-closet	H. C. Bull	122, 103
Earth-closet	D. B. Collins	121, 489
Earth-closet	J. M. Loewenstein	122, 123

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Earth-closets, Portable dumping-hod for	E. W. C. Vandever	113, 369
Earth pulverizer and harrow	J. Lefebvre and G. W. Shultz	120, 446
Earth-scraper	A. S. Babbit	111, 165
Easel, Coach-painters'	D. R. Harris	113, 049
Easel, Folding	R. Wright	116, 133
Easel picture-frame	R. Wright	117, 133
Eaves trough and conductor	R. B. Miller	115, 340
Eccentric for steam-engine governor, Variable	S. Stanton	113, 701
Edging-machine	E. H. Stearns	111, 093
Edging-machine	H. Bradt	113, 487
Egg and fruit carrier	W. J. Clark	112, 784
Egg and fruit carrier	J. T. Cornforth	117, 988
Egg-beater	H. F. Jenks and T. Marsh	115, 862
Egg-beater	D. B. Clayton	117, 982
Egg-beater	E. B. Kunkle	118, 727
Egg-carrier	W. Duchemin	116, 280
Egg-carrier	C. Tennant	120, 795
Egg-detector	A. Sahlstrom and P. Rohdin	116, 501
Eggs, Composition for preserving	J. T. McKim	116, 976
Eggs, Device for transporting	A. H. Bryant	112, 778
Eggs, Mode of transporting	H. Willard	117, 496
Eggs, Preserving	W. S. Marsh	121, 640
Eggs, Preserving	J. Knapp	122, 258
Elbow for hot-air pipes	J. M. Thatcher	115, 785
Electrical vacuum and vapor treatment, Apparatus for	M. H. Utley	115, 137
Electrical, burglar-alarms, and signals, Circuit-closer for	E. Holmes and H. C. Roome	120, 744
Electric and other fuse heads	E. A. L. Roberts	112, 850
Electro-magnet	E. Prevost	119, 176
Electro-magnetic apparatus	S. Gardiner, jr	116, 944
Electro-magnetic apparatus	G. Little	122, 266
Electro-magnetic machine	J. W. Powell	115, 118
Electro-medical apparatus	L. Drescher	116, 695
Electro-medical apparatus, Sponge-holder for	J. Kidder	116, 197
Electro-plating the interior of pipes and tubes with silver, nickel, &c.	D. Parmelee	114, 191
Electrotyping	W. A. Leggo	119, 622
Elevator	J. J. Weber	111, 255
Elevator	Z. C. Favor	112, 573
Elevator	C. E. Moore	114, 460
Elevator	J. Macomb	115, 335
Elevator	V. C. Blair	115, 683
Elevator	J. Bishop	115, 813
Elevator	D. H. Chamberlain	116, 156
Elevator	G. B. Lowe	117, 789
Elevator	G. C. Timpe	118, 300
Elevator	G. C. Timpe	118, 301
Elevator	J. Macomb	118, 468
Elevator	F. B. Perkins	119, 401
Elevator	P. Byrne	119, 574
Elevator	C. E. Moore	119, 635
Elevator	D. F. Skinner and J. Arnold	120, 676
Elevator	H. S. Stewart	121, 822
Elevator and carrier	T. W. Lackore	112, 357
Elevator and conveyor	T. J. Powell	111, 869
Elevator, Automatic steam water	C. Houghton	111, 542
Elevator, Barrel and box	E. and J. E. Blake	118, 097
Elevator, Brick and mortar	W. Boswell	118, 783
Elevator, Coal	J. C. Clifford	119, 574
Elevator-cup	A. A. Vitt	118, 076
Elevator for hods	L. Atwood	117, 140
Elevator for railroads, Combined hydraulic and pneumatic	H. H. Day	118, 696
Elevator, Hay	J. M. Van Demark and M. Barlow	114, 496
Elevator, Hay	C. E. Gladding	116, 300
Elevator, Hay	H. H. Quint	118, 270
Elevator, Hay	T. Harter	120, 273
Elevator hay-fork	J. T. H. Brown	113, 975
Elevator, Hod	E. H. Garrigues	120, 189
Elevator, Hydro-atmospheric	C. W. Baldwin	111, 030
Elevator, Ice	J. J. Neuman	117, 804
Elevator, Reet	E. J. Hulbert and A. N. N. Aubin	117, 634
Elevators, Electric indicator for	E. Holmes	121, 620
Elevator, Tobacco	R. O. Robertson	118, 153
Elevator, Water	P. W. Sawyer	114, 049
Elevator, Water	A. A. and R. P. McPheters	114, 176
Elevator, Water	R. F. Clow and W. H. Down	116, 025
Elevator, Water	L. F. Fischer	117, 164
Elevator, Water	W. P. Wentworth	118, 658
Elevator, Water	J. Curtis	119, 119

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Elevator, Water	I. Mayfield	119, 380
Elevator, Water	A. J. Clemmons	120, 714
Elevator, Water	T. J. Lovegrove	121, 637
Elevator, water, Electro-magnetic	S. G. Randall	119, 996
Elevator, Water, Pneumatic	P. W. Mackenzie	121, 533
Embalming	B. F. Lyford	111, 222
Emery-wheel	T. Harding	111, 057
Emery-wheels and artificial stone, Manufacture of	E. C. Merrill	113, 439
End-gate for wagons	J. L. Stropes	117, 014
Engine, Air	A. K. Rider	111, 083
Engine, Air	A. K. Rider	120, 325
Engine, Ammonia	C. Tellier	121, 909
Engine, ammoniacal-gas, Feeder for	E. Lamm	121, 527
Engine and boiler, Steam	G. E. Burkhardt	116, 019
Engine and pump	O. P. Lewis	121, 383
Engine, Blowing	L. J. Knowles	118, 949
Engine, Caloric	W. T. Halefas	113, 764
Engine, Combined blower and rotary	H. P. Tenant	114, 489
Engine, Combined steam and air	W. M. Storm	120, 681
Engine, Compressed-air	A. M. Smith	117, 825
Engine, Condensing double and locomotive	J. P. Woodbury	112, 001
Engine, Dental	J. B. Morrison	111, 667
Engine, Direct-acting	T. Hansen	116, 051
Engine, Direct-acting	B. M. Johnson	119, 083
Engine, double-acting, Rotary	J. P. Herron	111, 538
Engine, Dummy	E. G. Spengler	118, 291
Engine, Electro-magnetic	J. P. Tirrel	118, 561
Engine, Electro-magnetic	S. Jones	121, 173
Engine, Gas	C. P. Leavitt	118, 023
Engine, Hot-air	A. K. Rider	111, 087
Engine, Hydraulic	W. Snyder	110, 796
Engine, Hydraulic	W. J. Tate	120, 543
Engine, Locomotive	R. F. Fairlie	119, 591
Engine, Locomotive	J. Clark	120, 713
Engine, Locomotive and traction	T. Aveling	120, 611
Engine, Miniature steam fire	A. L. Dewey	118, 218
Engine, Motive-power	J. S. Johnstone	115, 963
Engine operated by heated liquids	J. S. Baldwin	121, 479
Engine operated by heated liquids	J. S. Baldwin	121, 480
Engine operated by heated liquids	J. S. Baldwin	121, 481
Engine, Oscillating	J. Goulding	115, 952
Engine, Oscillating	T. W. Goodwin	121, 355
Engine, Oscillating	A. Goulding	121, 457
Engine, Paper-pulp	H. B. Meech	116, 978
Engine, Paper-pulp	S. L. Gould	120, 265
Engine, Paper-pulp	J. Hatch	121, 780
Engine, Paper-pulp	C. Smith	121, 970
Engine, Paper-rag	N. W. Taylor and J. W. Brightman	120, 837
Engine, Pneumatic	J. F. Haskins	115, 193
Engine, pumping, Steam	L. J. Knowles	114, 506
Engine, pumping, Steam	H. R. Worthington	116, 131
Engine, pumping, Steam	P. Doyle	116, 572
Engine, Revolving-cylinder	J. Allonas and W. Bauman	118, 503
Engine, Rock-drilling	G. Phillips	117, 673
Engine, Rotary	S. Gibson	110, 912
Engine, Rotary	H. L. Bennison	118, 839
Engine, Rotary	R. Hughes	114, 655
Engine, Rotary	J. Cox	115, 171
Engine, Rotary	B. I. Henderson	115, 854
Engine, Rotary	W. Case	116, 022
Engine, Rotary	W. A. Graham	116, 436
Engine, Rotary	R. N. and R. Francis	116, 582
Engine, Rotary	J. M. Conkle	117, 153
Engine, Rotary	J. McGowan	117, 656
Engine, Rotary	W. P. Wentworth	118, 993
Engine, Rotary	J. Scott	119, 797
Engine, Rotary	W. Chase	120, 183
Engine, Rotary	J. W. Barriger	120, 231
Engine, Rotary	G. M. Venable	120, 470
Engine, Rotary	R. Leach	121, 947
Engine, Rotary	T. S. La France	122, 033
Engine, Rotary steam	P. Cramer	111, 818
Engine, Rotary steam	J. C. Mossholder	112, 066
Engine, Rotary steam	A. S. Harlan	112, 591
Engine, Rotary steam	W. Barry	113, 005
Engine, Rotary steam	T. S. La France	113, 309
Engine, Rotary steam	S. B. Freeman	116, 293
Engine, Rotary steam	W. Race	116, 352
Engine, Rotary steam	C. F. Roth	116, 357
Engine, Rotary steam	J. Barnett	116, 395
Engine, Rotary steam	C. A. Hege	118, 366

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Engine, Rotary steam.....	G. W. Briggs and M. H. Densmore	118, 840
Engine, Rotary steam.....	F. O. Deschamps	118, 915
Engine, Rotary steam.....	W. H. Ward	119, 483
Engine, Rotary steam.....	W. H. Ward	119, 484
Engine, Rotating cylinder	R. L. Cohen	112, 688
Engines, &c., Smoke-stack for	T. B. Phœbus	121, 062
Engines, direct-acting, Valve for.....	G. F. Blake	121, 320
Engines, locomotive, Driving-wheel of	A. F. Cooper	119, 014
Engines, Rotary steam	G. V. Atwood	120, 411
Engines, Steam and other	R. Marchant	120, 298
Engine, Steam	T. Ross	110, 681
Engine, Steam	J. Houpt	111, 937
Engine, Steam	J. Sharp and J. W. Thompson.....	111, 982
Engine, Steam	P. F. Nickerson	112, 170
Engine, Steam	S. P. Ruggles	112, 853
Engine, Steam	N. E. Nash	113, 553
Engine, Steam	S. D. Tillman	113, 813
Engine, Steam	D. R. Fraser	114, 125
Engine, Steam	A. Johnson	114, 300
Engine, Steam	H. Fontaine	114, 429
Engine, Steam	J. C. Woodhead	115, 145
Engine, Steam	J. Houpt	115, 208
Engine, Steam	I. W. Forbes	115, 301
Engine, Steam	P. L. Weimer	115, 400
Engine, Steam	H. W. Adams	115, 672
Engine, Steam	G. Bradford	115, 928
Engine, Steam	A. L. Dewey	116, 031
Engine, Steam	J. Houpt	116, 312
Engine, Steam	J. Banks	116, 394
Engine, Steam	H. W. Adams	116, 407
Engine, Steam	J. D. Whelpley	116, 902
Engine, Steam	O. M. Pike	117, 108
Engine, Steam	G. H. Bailey and H. H. Burritt	117, 362
Engine, Steam	E. Post	117, 458
Engine, Steam	H. Vosper	117, 701
Engine, Steam	A. W. Jackson	118, 183
Engine, Steam	W. M. Starr	118, 401
Engine, Steam	C. Levy	118, 463
Engine, Steam	J. M. Cooper	118, 692
Engine, Steam	J. Wheelock	118, 764
Engine, Steam	H. T. and T. Jennings	118, 857
Engine, Steam	J. H. McGowan and D. B. Caldwell	119, 039
Engine, Steam	S. Van Emon	120, 221
Engine, Steam	J. Neuert	120, 661
Engine, Steam	E. H. Rees	121, 064
Engine, Steam	A. A. Heath	121, 364
Engine, Steam	E. Nicholson	121, 891
Engine, Steam	E. Evans	121, 935
Engine, Steam	F. Motley	122, 049
Engine, Steam	L. Carman	122, 224
Engine, Steam	D. A. Greene	122, 248
Engine, Steam and air	J. F. Alexander	119, 685
Engine, Steam and other motive-power	R. M. Marchant	115, 876
Engine, steam and water-jet, Rotary	J. McGowan	117, 655
Engine, steam, Direct-acting.....	C. P. Deane	121, 451
Engine, Steam or water	L. D. B. Shaw	121, 427
Engine, Steam-water.....	H. J. King and D. C. Mulock	112, 151
Engines, Stuffing box for	J. A. H. Ellis	111, 330
Engine, Traction	T. T. Prosser	110, 865
Engine, Traction	G. W. Fitts	112, 325
Engine, Traction	J. W. Hazen	113, 767
Engine, Traction	J. H. Clapham	115, 280
Engine, Traction	M. A. Halstead	119, 138
Engine, Traction	R. C. Parvin	119, 878
Engines, traction, Elastic tire for	O. Hyde	117, 422
Engine, Vacuum	H. W. Adams	114, 083
Envelope	R. S. Stubbs	110, 798
Envelope	E. S. Ellis	112, 568
Envelope	P. Lockwood	114, 461
Envelope	J. P. Thompson	114, 228
Envelope	H. K. Gregg	114, 672
Envelope	E. J. Smith	114, 871
Envelope	J. W. Groomes	116, 180
Envelope	M. Taylor	117, 015
Envelope	C. E. McMahan	117, 795
Envelope	S. D. Bates	122, 212
Envelope-machine	J. Ball	111, 420
Envelope-machine	H. D. and D. W. Swift	115, 381
Envelope-machine	H. D. and D. W. Swift	115, 382
Envelope-machine	J. C. Gaston	118, 525
Epergnes for fruits and flowers.....	S. S. Barrie	117, 965

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Equalizer, Three-horse.....	L. Warren.....	117, 021
Eraser, Rubber.....	W. N. Bartholomew.....	121, 982
Escape-pipe, Condensing.....	B. F. Smith.....	118, 885
Eseritoir, Portable.....	W. G. Mitchell.....	111, 231
Essential oils. Apparatus for extracting.....	G. G. Percival.....	110, 908
Evaporating and clarifying saccharine liquids, Apparatus for.....	F. G. Butler.....	119, 694
Evaporating and concentrating liquids, Apparatus for.....	J. Howarth.....	112, 347
Evaporating and concentrating liquids.....	J. Howarth.....	112, 348
Evaporating-apparatus.....	J. Cook.....	120, 859
Evaporating, concentrating, and superheating salt-brine.....	J. Howarth.....	117, 290
Evaporating liquids by means of air-blasts, Apparatus for.....	G. Clark.....	115, 572
Evaporating-pan for saccharine liquids.....	F. G. Butler.....	112, 319
Evaporating saccharine liquids, Apparatus for.....	F. G. Butler.....	112, 539
Evaporator.....	R. Hawley.....	111, 121
Evaporator.....	S. P. Dyer.....	114, 275
Evaporator for brine.....	M. P. Hayes.....	118, 718
Evaporator for concentrating liquids and boiling for stock, &c.....	A. J. Andrews.....	117, 030
Evaporator for sap, &c.....	W. F. Gibson.....	119, 929
Evaporator, Sugar.....	W. E. Jacobs.....	118, 943
Evaporators, sugar, Smoke-pipe and blast-plate for.....	C. C. Post.....	114, 597
Evener.....	M. Terrill.....	117, 123
Excavating-machine.....	J. M. Hughes and A. J. Mapes.....	111, 940
Excavating-machine.....	E. H. Williams.....	115, 998
Excavating-machine.....	R. W. Davis.....	117, 993
Excavator.....	D. Gilmore and W. W. Forrest.....	110, 759
Excavator.....	T. Symonds.....	111, 757
Excavator.....	B. F. Stowell.....	113, 221
Excavator.....	J. S. Thomas.....	113, 223
Excavator.....	J. C. Osgood.....	113, 691
Excavator.....	M. M. Hodgman.....	113, 883
Excavator.....	T. Symonds.....	114, 878
Excavator.....	S. Miller and E. Clarrington.....	115, 084
Excavator.....	W. J. Carroll.....	115, 700
Excavator.....	J. P. T. Davis.....	118, 793
Excavator.....	J. M. Dunn.....	119, 334
Excavator, Submarine.....	G. V. Sheffield.....	116, 876
Excavator, Submarine.....	T. Jones.....	117, 298
Excavator, Submarine.....	R. R. and R. R. Osgood.....	119, 992
"Excelsior" machine.....	J. Felber.....	120, 866
Excelsior, Machine for making.....	G. H. Smith.....	118, 289
Exhaust for locomotive-engines, Variable.....	O. Stewart.....	120, 120
Exhaust-nozzle.....	J. Lewis.....	116, 605
Extracts from hemlock and other barks, Apparatus for the manufacture of.....	W. Maynard.....	118, 956
Extraneous coloring-matters, &c., Apparatus for discharging from printed fabrics.....	B. G. Brooks.....	119, 503
Extractor for oil-wells.....	H. Harris.....	112, 142
Eye-glass.....	I. Cements.....	115, 574
Eyelet-blanks, Manufacture of.....	W. R. Landfear.....	110, 979
Eyeletting-machine.....	A. Komp.....	110, 767
Eyeletting-machine.....	G. Wunderlich.....	121, 224
Eyeletting-machine.....	A. Delkescamp.....	121, 495
Eyelets, buttons, &c., Japanning.....	S. N. Smith.....	111, 882
Eyelets, Device for separating.....	S. N. Smith and S. W. Young.....	112, 086
Eyelets for attaching buttons to textile fabrics.....	C. M. Platt.....	118, 640
Eyelets, Machine for making.....	J. C. Rhodes.....	119, 647
Eyelets, Machine for making.....	T. Garrick.....	119, 979
Eyelet-stock, Manufacture of.....	S. N. Smith.....	112, 973
F.		
Fabric, Felted.....	J. E. Pollard.....	111, 963
Fabric, Felted.....	T. Demuth.....	113, 274
Fabric for cuffs.....	H. H. Thayer and W. H. Hart.....	114, 490
Fabric from waste leather.....	E. Waite.....	114, 373
Fabric, Knit.....	S. Thacker.....	120, 126
Fabric, Knitted.....	H. Boot.....	114, 397
Fabrics, Apparatus for bleaching.....	L. Mendelson.....	117, 796
Fabrics Apparatus for dyeing.....	T. M. Drown.....	110, 907
Fabrics, Implement for embossing.....	J. W. McKee.....	122, 044
Fabrics, Machine for pressing.....	G. H. Nussey and W. B. Leachman.....	111, 141
Fabrics, Mode of producing designs for knit and woven.....	I. Rehn.....	121, 123
Fabrics, Recoloring.....	J. M. Wallace.....	114, 069
Fabric, textile, Compound for coating.....	J. Schultz.....	116, 997
Fabric, Woven.....	T. Isherwood.....	115, 859
Facing T-heads, Machine for.....	J. Griffith and G. W. Wundrum.....	113, 653
Fagot for metal bars.....	E. Wheeler.....	122, 090

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Faller for spinning-mules	J. Smith	114, 059
Fan and fly-brush combined	H. Mee	118, 870
Fan and fly-driver	F. M. Hunt	112, 921
Fan, Automatic	C. B. Smith	112, 293
Fan, Automatic	G. C. Bovey	113, 620
Fan, Automatic	B. D. Thompson	114, 491
Fan, Automatic	E. D. Swartwout	117, 346
Fan, Automatic	L. A. Walton	118, 832
Fan, Automatic	W. De L. Hall	119, 351
Fan, Automatic	M. Lochner	120, 293
Fan, Bed and table	W. H. Downs	119, 128
Fan-blast regulator	D. Garver	114, 547
Fan, Electro-magnetic	G. Stevens and J. W. Moyle	116, 770
Fan, Mosquito	J. M. Beverley	117, 969
Fanning-machine	E. P. Doremus	111, 917
Fans, Apparatus for	W. M. Bruntion	116, 788
Fan, Suction and blast	C. R. Patterson	120, 317
Fare-box	J. F. Winchell	115, 999
Fare-box	J. F. Winchell	121, 920
Fare-box	B. F. Grimes	118, 927
Fare-recorder	G. R. Metten and O. S. Pease	110, 770
Fastener for meeting-rails of sashes	E. K. Breckenridge	110, 733
Fastener for meeting-rails of sashes	N. Thompson	119, 198
Fastener for meeting-rails of sashes	J. M. Crossman and G. Swan	120, 419
Fastener for meeting-rails of sashes	G. M. Hubbard	120, 441
Fastener for meeting-rails of sashes, Automatic	H. Smiley and W. T. Longhead	116, 878
Fastener for sashes and blinds, Combined	A. Hays	119, 271
Fastening for boxes, &c	J. J. Greenough	120, 192
Fastening for braces, &c	E. L. Parker	110, 783
Fastening for carriage-curtains, &c	S. Shute, jr.	113, 215
Fastening for door-knob roses	J. M. Adolphus	111, 297
Fastening for eaves-troughs	L. Cook	110, 633
Fastening for epaulettes	W. J. Horstmann	111, 456
Fastening for meeting-rails of sashes	S. D. Arnold	116, 006
Fastening for meeting-rails of sashes	C. Morrill	116, 076
Fastening for textile fabrics	A. Warth	112, 753
Fastening for the tips of billiard-cues	O. C. Wilbur, jr.	110, 883
Fastening for window-sashes	J. K. Butler	118, 512
Fastening for window-shutters	E. J. Steele	115, 781
Fatty matters from vegetable substances, Apparatus for separating	T. Sim	121, 903
Fatty matters, Treating	L. L. A. E. P. de la Peyrouse	121, 162
Fatty substances, Process and apparatus for extracting	C. F. A. Simonin	119, 188
Faucet	T. Bartholomew	111, 509
Faucet	J. R. Mackay	111, 659
Faucet	W. C. Wise and J. Ashman	112, 000
Faucet	W. H. Hedges	112, 035
Faucet	C. B. O'Sullivan	112, 173
Faucet	S. Pfeiffer	112, 487
Faucet	J. S. Clute, H. W. and W. D. Trissler	113, 630
Faucet	J. Knoche	116, 326
Faucet	C. Utter and G. E. Bruster	117, 699
Faucet	W. Cleveland	117, 866
Faucet	A. D. Smith	121, 430
Faucet	M. Burnett	121, 487
Faucet	J. H. Alexander	121, 978
Faucet, Bottle	J. Sargent and L. F. Munger	121, 201
Faucet, Coupling	O. Salgee	119, 243
Faucet for beer and other barrels	S. Thompson	111, 018
Faucet, or supply-cock	E. F. Shoenberger	114, 981
Faucet, Rotary measuring	W. H. Laubach	117, 895
Faucet, Self-closing	J. Hayden, jr.	118, 012
Feather-renovator	J. T. Sheldon	111, 576
Feather-renovator	J. A. Bell	111, 606
Feather-renovator	J. Garrett and J. E. Rauch	113, 157
Feather-renovator	B. F. Cramer	115, 440
Feather-renovator	J. C. Rose and J. F. Silversmith	116, 101
Feather-renovator	C. E. Barber and W. Dean	116, 535
Feather-renovator	J. Wellfare and F. Champagne	120, 174
Feather-renovator	S. B. Shoemaker	121, 257
Feeder for ore-roasting furnaces	J. P. Arey	117, 718
Feeder for steam-boilers, Hot-water	J. H. Mills and J. Howarth	110, 668
Feeder for wax tapers	S. G. Dare	114, 772
Feed-grinder	M. Gore	111, 530
Feeding and watering stock in cars, Apparatus for	W. Stark, J. G. Fisher, and S. Fitch	121, 214
Feeding-device for cattle-stalls	A. H. Maham	115, 874
Feeding-device for wood-screw machines	A. Buckminster	116, 263
Feeding quicksilver to stamps and amalgamators	G. C. Munson	111, 669
Feeding white-lead, &c., from mixing-tub to the mill-stones	J. B. Pollock	121, 416

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Feed-pipe for steam-boilers.....	J. Cone.....	119, 824
Feed-rack, Portable.....	E. Farquhar.....	112, 133
Feed-regulating mechanism of cotton-lapper.....	R. Kitson.....	116, 840
Feed-roller for grain-drills.....	J. H. Thomas.....	114, 227
Feed-trough guard.....	E. Hovenden.....	111, 132
Feed water apparatus.....	J. Kindell.....	111, 630
Feed-water apparatus for steam-boilers.....	W. C. Selden.....	119, 185
Feed-water apparatus for steam-boilers.....	C. G. Fisher.....	119, 535
Feed-water heater and circulator, Combined.....	E. L. Jones.....	111, 215
Feed-water heater and steam-generator.....	M. N. Lynn.....	122, 042
Feed-water heater for steam-boilers.....	J. F. Taylor.....	119, 428
Feed-water regulator for steam-boilers.....	R. Berryman.....	118, 672
Feed-water to steam-boilers, Admission of.....	T. Roberts.....	114, 202
Fellies, Machine for fitting and boring.....	W. L. Perry.....	119, 880
Fellies, spokes, &c., Apparatus for oiling.....	P. E. Bomby.....	111, 511
Felly-plate.....	F. B. Morse.....	115, 504
Felting, Composition.....	H. M. Stimson.....	119, 059
Felting-machine.....	R. Eickemeyer.....	121, 045
Fence.....	C. M. Ballard and M. Morehouse.....	110, 888
Fence.....	T. C. Collins.....	110, 899
Fence.....	A. Faulkner.....	110, 910
Fence.....	W. W. Sherman.....	111, 020
Fence.....	H. M. Barber.....	111, 508
Fence.....	O. F. A. Faulkner.....	111, 831
Fence.....	J. Morton.....	112, 064
Fence.....	J. W. Feller and W. Townsend.....	112, 194
Fence.....	J. Waddle.....	112, 198
Fence.....	W. Altick and F. P. Grimes.....	112, 672
Fence.....	J. T. Drummond.....	113, 753
Fence.....	L. Moore.....	114, 178
Fence.....	E. Ely.....	114, 543
Fence.....	L. N. Clark.....	115, 165
Fence.....	M. Van Wormer.....	115, 663
Fence.....	J. J. Knight.....	115, 742
Fence.....	H. Devoe.....	115, 830
Fence.....	J. A. Kysor.....	116, 329
Fence.....	T. C. Wood.....	116, 637
Fence.....	P. C. Pearson.....	116, 989
Fence.....	S. S. Porter.....	117, 325
Fence.....	L. P. Judson.....	118, 135
Fence.....	J. Rohrer.....	118, 156
Fence.....	A. H. Smith.....	118, 328
Fence.....	H. H. Landis.....	118, 461
Fence.....	P. J. Hynes.....	118, 535
Fence.....	P. C. Yost.....	118, 693
Fence.....	R. M. Weider and J. Meals.....	118, 888
Fence.....	D. Rhodes.....	119, 047
Fence.....	H. Latshaw.....	119, 337
Fence.....	J. D. Tift.....	119, 670
Fence.....	P. C. Yost.....	120, 178
Fence.....	C. H. Strowger.....	120, 546
Fence.....	B. F. Mears.....	120, 929
Fence.....	C. E. Brown.....	121, 448
Fence.....	J. W. Cherry.....	121, 752
Fence.....	R. B. Meeker.....	121, 797
Fence.....	B. G. Devoe.....	121, 855
Fence, Flood.....	C. R. Hunter.....	112, 250
Fence, Flood.....	J. L. Wines.....	112, 211
Fence, Flood.....	J. L. Seat.....	122, 067
Fence, Portable.....	H. Sinclair.....	111, 578
Fence, Portable.....	F. Sproul.....	113, 105
Fence, Portable.....	A. Jewett.....	119, 614
Fence, Wire.....	C. A. Wakefield.....	112, 688
Fence, Wire.....	Z. Nicholson.....	114, 022
Fence, Wire.....	A. C. Sisson.....	114, 037
Fence, wire, Constructing.....	J. W. Rappleye.....	116, 755
Fender and gauge-wheel, Combined.....	A. B. Thornton.....	111, 720
Fender, Fire-place.....	C. C. Algeo.....	115, 265
Fender, Fire-place.....	C. C. Algeo.....	121, 073
Fender for gas-brackets.....	W. H. Miller.....	119, 226
Fender or cushion for furniture.....	G. R. Wilmot.....	113, 605
Fermentation and purification of organic substances.....	R. D'Heureuse.....	112, 226
Ferrule.....	W. H. Rodden.....	111, 573
Ferrule.....	D. G. Smith.....	113, 805
Ferrule.....	D. Moore.....	120, 763
Ferrules, Apparatus for tapering.....	J. L. Parker.....	116, 479
Ferrules, Method of manufacturing.....	S. E. Jerals, H. A. Nettleton, and E. R. Lawton.....	118, 858
Fertilizer.....	T. Taylor.....	112, 633
Fertilizer and seeding-machine.....	A. Putnam.....	112, 420
Fertilizer-distributor.....	C. Salvo.....	111, 685

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Fertilizer-distributor	J. A. Morton	115,505
Fertilizer-distributor, Broadcast	J. P. Machen	115,749
Fertilizer-distributor, Broadcast	J. P. Machen	115,750
Fertilizer from sea-weeds	U. S. Treat	118,987
Fertilizers and ammoniacal salts, Treating blood for the manufacture of	J. J. Craven	111,910
Fertilizers, Apparatus for treating animal matter for	H. A. Hogel	114,508
Fertilizers, Manufacture of soluble phosphates for	D. W. Prescott	119,994
Fertilizers, Treating blood for the manufacture of	L. S. Fales	111,734
Fetter or clog for fowls	S. J. Baker	110,621
Fever and ague cure, Medical compound for	L. Bodenheimer	121,984
Fever and ague, Medical compound for the cure of	O. Seidmore	119,053
Fever and ague, Medical compound for treating	G. E. Swan	112,509
Fiber-cleaning machine	J. Brown	116,546
Fiber-cleaning machine	C. A. Dean	118,591
Fifth-wheel	J. Skeen	115,245
Fifth-wheel	A. Finley	121,603
Fifth-wheel and attachment	J. Skeen	115,246
File	A. Hyland	114,824
File	H. B. Nickerson	114,962
File	I. N. Patten	119,947
File-cutting machine	P. J. Carlsson	110,956
File-cutting machine, Feeding-mechanism for	C. E. Moore	114,957
File-handle	D. Pfouts	117,677
File holder and polisher, Dental	H. Lawrence	115,070
Files, Machine for cutting	J. Dodge	112,430
Filler-box for cigar-makers	G. Barry	122,211
Filter	L. Raecke	111,001
Filter	J. Brown	113,491
Filter	B. Holly	113,516
Filter	W. Linton	116,463
Filter	J. P. A. Vollmar	118,306
Filter	H. N. Taft	122,291
Filter for cisterns	R. W. Thompson	111,701
Filtering, Material	L. Brandeis	113,973
Filter, Wine	A. F. Schmidt	121,065
Finger-guard	L. Holmes	113,519
Finishing vulcanized India rubber belting	C. McBurney	115,880
Fire-alarm and police-signal box	W. J. Phillips	120,395
Fire-alarm, Electric	E. A. Hill	121,717
Fire-alarm telegraph-apparatus	J. N. Gamewell	113,649
Fire-arm, Breech-loading	M. J. Chamberlain	111,814
Fire-arms, Breech-loading	W. G. Ward	111,994
Fire-arm, Breech-loading	D. Smith and M. J. Chamberlin	112,505
Fire-arm, Breech-loading	J. M. Mason	112,523
Fire-arm, Breech-loading	J. Duval	112,565
Fire-arm, Breech-loading	H. Hammond	112,589
Fire-arm, Breech-loading	W. C. and P. T. Dodge	112,694
Fire-arm, Breech-loading	W. C. Dodge	112,763
Fire-arm, Breech-loading	E. Whitney	112,997
Fire-arm, Breech-loading	R. Nenninger	113,194
Fire-arm, Breech-loading	W. C. Dodge	113,408
Fire-arm, Breech-loading	F. Tiesing and C. Gerner	113,470
Fire-arm, Breech-loading	F. J. Abbey and J. H. Foster	114,081
Fire-arm, Breech-loading	F. Tiesing and C. Gerner	114,230
Fire-arm, Breech-loading	H. Büchner	114,259
Fire-arm, Breech-loading	W. H. Elliott	114,540
Fire-arm, Breech-loading	W. C. Dodge	114,653
Fire-arm, Breech-loading	J. Yglesias	114,742
Fire-arm, Breech-loading	J. Lee	114,951
Fire-arm, Breech-loading	F. Von Martin	115,546
Fire-arm, Breech-loading	S. F. Van Choate	115,911
Fire-arm, Breech-loading	E. Whitney	115,997
Fire-arm, Breech-loading	W. S. Smoot	116,106
Fire-arm, Breech-loading	G. W. Schofield	116,225
Fire-arm, Breech-loading	W. T. Snedden	116,363
Fire-arm, Breech-loading	W. T. Snedden	116,364
Fire-arm, Breech-loading	J. Lee	116,068
Fire-arm, Breech-loading	G. R. Stetson	116,642
Fire-arm, Breech-loading	V. Fogerty	117,398
Fire-arm, Breech-loading	J. Manton	117,532
Fire-arm, Breech-loading	A. E. Whitmore	117,843
Fire-arm, Breech-loading	J. M. Mason	117,906
Fire-arm, Breech-loading	J. B. Wayne	118,171
Fire-arm, Breech-loading	W. C. and P. T. Dodge	118,350
Fire-arm, Breech-loading	J. D. Wilkinson	118,569
Fire-arm, Breech-loading	H. Updegraff	119,098
Fire-arm, Breech-loading	A. Henry	119,145
Fire-arm, Breech-loading	A. Burgess	119,218
Fire-arm, Breech-loading	G. B. Pierce	119,474
Fire-arm, Breech-loading	G. H. Ferris	119,834

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Fire-arm, Breech-loading.....	G. Merrill.....	119, 939
Fire-arm, Breech-loading.....	G. Merrill.....	119, 940
Fire-arm, Breech-loading.....	W. S. Smoot.....	120, 788
Fire-arm, Breech-loading.....	F. Von Martini.....	120, 800
Fire-arm, Breech-loading.....	W. H. Elliott.....	121, 499
Fire-arm, Magazine.....	J. Davis.....	112, 127
Fire-arm, Magazine.....	H. K. Forbes.....	112, 795
Fire-arm, Magazine.....	J. L. Kirk.....	116, 066
Fire-arm, Magazine.....	J. Rider.....	118, 152
Fire-arm, Magazine.....	A. Burgess.....	119, 115
Fire-arm, Repeating.....	L. Wheelock.....	111, 500
Fire-arm, Repeating.....	H. J. Drew.....	112, 564
Fire-arm, Revolving.....	E. S. Leacroft.....	112, 471
Fire-arm, Revolving.....	E. S. Leacroft.....	112, 472
Fire-arm, Revolving.....	S. S. Hopkins.....	113, 053
Fire-arm, Revolving.....	E. Whitney.....	115, 258
Fire-arm, Revolving.....	F. Wesson.....	115, 916
Fire-arm, Revolving.....	J. L. Moss and E. W. Johnson.....	116, 078
Fire-arm, Revolving.....	S. Forehand and H. C. Wadsworth.....	116, 422
Fire-arm, Revolving.....	B. F. Joslyn.....	115, 483
Fire-arm, Revolving.....	F. G. Cochran.....	116, 559
Fire-arm, Revolving.....	F. W. Hood.....	116, 593
Fire-arm, Revolving.....	C. B. Richards.....	117, 461
Fire-arm, Revolving.....	C. Sharps.....	118, 752
Fire-arm, Revolving.....	C. B. Richards.....	119, 048
Fire-arm, Revolving.....	J. Rupertus.....	121, 199
Fire-arm, Rifled.....	A. Henry.....	119, 546
Fire-arms, Breech-loading.....	G. B. Gray and J. H. Romans.....	112, 603
Fire-arms, Magazine for breech-loading.....	W. H. Elliott.....	111, 827
Fire-arms, revolving, Retractor for.....	T. Lee.....	122, 182
Fire-arms, Screw-driver for.....	G. W. Schofield.....	119, 656
Fire-arms, Swivel-loop for.....	O. F. Winchester.....	121, 835
Fire-bar.....	W. Batchelor.....	111, 031
Fire-box, Portable.....	W. L. May.....	116, 466
Fire-bricks, Manufacture of.....	B. Kreischer.....	114, 449
Fire-chamber for puddling, steam-boiler, and other furnaces.	W. F. Beecker.....	113, 481
Fire-engine, Steam.....	L. and T. E. Button.....	116, 151
Fire-escape.....	E. J. Hudson.....	110, 851
Fire-escape.....	J. Ivory.....	112, 714
Fire-escape.....	C. P. Kenyon.....	112, 928
Fire-escape.....	W. Gardner.....	113, 509
Fire-escape.....	T. L. Summeril.....	112, 982
Fire-escape.....	G. Laynor and H. Helmling.....	113, 311
Fire-escape.....	G. H. Nichols.....	113, 329
Fire-escape.....	G. C. Smith and F. M. Burrows.....	113, 357
Fire-escape.....	J. Hoeflinger.....	113, 667
Fire-escape.....	W. De Pew.....	114, 421
Fire-escape.....	W. Henly.....	116, 441
Fire-escape.....	E. Ale.....	116, 659
Fire-escape.....	G. C. Smith and F. M. Burrows.....	117, 007
Fire-escape.....	J. C. Hancock and E. P. Richardson.....	117, 773
Fire-escape.....	E. R. Wethered.....	118, 172
Fire-escape.....	G. W. Bishop and H. H. Smith.....	119, 008
Fire-escape.....	T. C. Rice.....	119, 997
Fire-escape.....	J. W. Davis and J. Vermillion.....	120, 420
Fire-escape.....	W. A. Sharp and G. Hollenbeck.....	121, 011
Fire-escape.....	J. J. Treanor.....	121, 826
Fire-escape and hose-elevator.....	W. H. Nobles.....	120, 211
Fire-escape ladder.....	H. and G. Luckenbach.....	119, 161
Fire-escape, Pocket.....	G. A. England.....	114, 119
Fire-escape, Portable.....	G. D. McCullen.....	121, 796
Fire-extinguisher.....	J. Gardner.....	111, 836
Fire-extinguisher.....	E. Saunder.....	111, 877
Fire-extinguisher.....	C. Blake.....	114, 256
Fire-extinguisher.....	J. B. Van Dyne.....	114, 627
Fire-extinguisher.....	D. M. Ford and J. A. Kley.....	116, 041
Fire-extinguisher.....	S. B. Johnson.....	117, 891
Fire-extinguisher.....	S. M. Lillie.....	117, 900
Fire-extinguisher.....	E. Jones.....	119, 930
Fire-extinguisher.....	J. H. Manning.....	119, 936
Fire-extinguisher.....	J. Gardner.....	122, 244
Fire-extinguishers, Acid bottle for.....	J. C. Davison.....	114, 175
Fire-extinguishing.....	J. Autenrieth.....	119, 104
Fire-grate.....	R. F. Weller.....	118, 762
Fire-kindler.....	J. H. Hice.....	115, 205
Fire-kindler.....	A. B. King.....	115, 216
Fire-kindler.....	W. H. McCrary.....	115, 757
Fire-kindler.....	J. E. Finley, G. H. Hurd, and B. F. Tatem.....	117, 757
Fire-kindler.....	R. P. Smith.....	119, 893

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Fire-kindler	N. Rogers	120, 898
Fire-kindling	J. W. Still	114, 219
Fire-kindling	L. Dodge	118, 700
Fire-lighter	J. McCullum and J. Hartzell	120, 206
Fire-machine	W. Bowden	121, 078
Fire-place	J. Hackett	111, 929
Fire-place	J. Smith	112, 188
Fire place	J. W. Wetmore	112, 199
Fire-place	P. M. Roche	114, 045
Fire-place	J. E. Wood	114, 075
Fire-place	P. Brecher	116, 146
Fire-place	M. A. Cushing	117, 053
Fire-place	J. Hackett	117, 276
Fire-place	R. P. Thomas	121, 911
Fire-place heater, Base-burning	J. B. Snider	116, 365
Fire-places, Mantel and front for	D. K. Innes and W. W. Magill	117, 294
Fire-plate for boiler-furnaces	E. Boileau	119, 562
Fire-plug	J. McClelland	115, 495
Fire-plug and hydrant	A. F. Allen	122, 097
Fires, Apparatus for extinguishing	G. W. Nichols	119, 638
Fire-screen and stand	H. O. Fritsch	110, 844
Fire-shield	H. Rieger	121, 421
Fire-shield, Portable	A. Dean	117, 749
Firing, Mechanical	S. Danks	116, 275
Fish-hatching apparatus	L. Stone	116, 112
Fish-hook holder	L. Arnold	117, 719
Fishing-line, Metallic	H. Camp	118, 772
Fishing-reel	S. B. Terry	121, 020
Fishing-rod	T. Tout	119, 251
Fish-net supporter	B. Rider, jr	113, 572
Fish-nursery	R. E. Sabin	116, 995
Fish, Preserving by freezing	S. H. and D. W. Davis	112, 129
Flag-halyard	W. Albert	119, 292
Flask for casting pipe	J. Demarest	113, 986
Flask, Liquid	H. W. Dee	115, 283
Flat-iron	A. Batchelder	117, 592
Flat-iron holder	F. Bruns	121, 273
Flax, Machine for pulling	B. M. Reeves	113, 094
Flax-puller	S. W. Tyler	117, 125
Flax-puller	B. M. Reeves	117, 926
Flax thrashing and separating machine	J. Boyce	115, 020
Flesh offal, &c., Treating	W. Adamson and C. F. A. Simonin	119, 000
Flier for spinning	J. S. Brown	114, 524
Flier for spinning, &c.	T. Stibbs	116, 881
Flier for spinning-machine	T. T. Abbott and J. A. V. Smith	110, 617
Flock-cutting machine	M. and C. H. Morse	114, 588
Flock-cutting machine, Reversible	J. Pitts, R. Aldrick, and E. T. Marble	121, 415
Floor-covering, roof, &c.	D. L. Wolf	116, 128
Floor, Fire-proof	J. Dunseith	118, 220
Floors, pavements, &c., Coating with concrete and cement.	C. C. Hallock	121, 284
Floors, pavements, &c., Composition for	A. Solari	111, 395
Floor, Stall	T. E. Hall	121, 243
Floor, Water-proof	T. New	113, 787
Flour	T. Carr	118, 105
Flour-bolt	R. W. Cunningham	110, 635
Flour-bolt	T. M. Walker	113, 226
Flour-bolt	D. N. M. Perego	114, 966
Flour-bolt	E. D. Auchey	115, 412
Flour-bolt	E. V. Easley	117, 395
Flour-bolt	J. C. Smith	117, 938
Flour-bolt	W. Bashor	118, 508
Flour-bolt	T. G. Morgan	119, 783
Flour-bolt	R. H. St. John	121, 681
Flour-bolt	H. N. Petersen	122, 054
Flour-bolt and reel	J. R. Bradfield	113, 972
Flour-bolting machine	J. C. Cookson	121, 708
Flour-bolt vibrator	C. A. Canan	121, 585
Flour-bracket	W. Hichborn	116, 708
Flour-chest and cupboard, Combined	T. J. Corr	120, 496
Flour for use in confectionery, Preparing	W. G. Dean	113, 559
Flour, Making	G. Motley	113, 075
Flour, Manufacture of	E. S. Hutchinson	112, 046
Flour, Process for bolting	L. G. Binkley	116, 200
Flower-pot	A. D. Judd	119, 272
Flower-pots, Green glaze for	J. E. Brooks	112, 776
Flowers, natural, Preserving	P. T. Vining	116, 375
Flower-stand	E. D. Castelov	111, 008
Flower-stand	G. Erkson	113, 035
Flower-stand	C. T. Lee	116, 459
Flower-stand	E. T. Cobb	118, 844

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Flower-stand for windows	F. W. Test	121, 972
Flower-stand, Revolving	T. Leslie	120, 078
Flue-expander	I. S. Hamilton	121, 514
Fluid for extracting grease from fabrics	J. B. Wilson	122, 094
Fluid for writing on checks, drafts, &c.	C. L. Lawrence	115, 744
Fluid-reservoir for street-lamps, Detachable	L. A. Gouch	114, 550
Fluids, Apparatus for forcing	T. W. Malone	115, 776
Fluting-machine	A. Burbank	110, 895
Fluting-machine	T. M. Tucker	111, 558
Fluting-machine	S. W. Babbitt	113, 242
Fluting-machine	E. M. Deey	113, 271
Fluting-machine	H. Somer and C. Bauer	115, 251
Fluting-machine	T. M. Tucker	117, 457
Fluting-machine	C. W. Thompson	117, 578
Fluting-machine	J. W. Madden	120, 531
Fluting-machine	E. M. Deey	121, 235
Fluting-tongs	J. C. Robie	111, 475
Fluting-tongs	E. R. Shepard	121, 428
Flux for reducing ores and refining metals	W. Quann	120, 039
Flux for welding steel of high and low grades	J. Farel	111, 114
Fly-brush, Automatic	H. C. Chandler	121, 750
Fly-brush, Mechanical	H. E. Aughinbaugh	115, 560
Fly-catcher	H. A. Faruam	111, 332
Fly-exterminator	A. K. Walker	111, 497
Fly-wheel	C. Root	117, 115
Fly-wheel	J. W. Keely	118, 022
Fodder stand	J. Antram and E. B. Mullin	111, 301
Fog-horn	J. R. Anderson	117, 717
Folding-chair and life-preserver	J. M. Rudiger	117, 209
Folding-step for vehicles	W. Henry	120, 517
Food from algae or sea-mosses, Article for	W. J. Rand, jr.	113, 561
Foot-lifter for blacksmiths	T. C. Williams	113, 379
Foot-rot in sheep, Compound for cure of	W. T. Sherman	113, 459
Forceps, Dental	N. A. Durham	121, 599
Forceps, Dental	N. A. Durham	121, 858
Forceps, Dental	L. G. Haskins	122, 012
Forceps, Dental	P. N. Jacobus	122, 254
Force-pump, Double-acting	J. Barney	113, 132
Forcing liquids by the expansion and condensation of gases, Apparatus for	J. L. Baldwin	121, 432
Forge	W. T. Kosinski	117, 303
Forge-bonnet	W. Dunkerly	114, 115
Forges, portable, Driving-gear for	L. R. Fitch	120, 957
Forging-machine	J. Pipes	113, 922
Fork, Flesh	P. Fisher	116, 291
Fork for hay-elevators	B. G. Fox	118, 121
Fork, Gavel	B. Wright and W. C. Park	114, 080
Fork, hoe, &c	S. Sheble	113, 212
Fork, Hoisting	E. Magruder	111, 361
Fork, Manure	A. S. Brinser and H. Bricker	110, 734
Fork-tine	W. H. Rodden	120, 458
Fork-tine scoop for gathering stones	N. S. Barnum	120, 146
Forming the heads of wrench-bars, Mode of	A. G. Coes	113, 743
Forms of type, engraved blocks, &c, Treating	J. A. Adams	118, 420
Foundation for plastering	J. John	119, 615
Fountain	J. Storer	111, 697
Fountain	L. Schoeney	114, 718
Fountain	G. Polyblank and J. Parkin	119, 046
Fountain	H. H. Sawtell	120, 902
Fountain	H. Broezel	121, 580
Fountain for wash-boilers	G. F. Stone	120, 218
Fountain, Poultry	J. S. Orndorff	117, 807
Fountain, Soda	E. B. Myers	118, 876
Fountain, Soda-water	A. Tmmler	110, 804
Frame for diking streets	J. S. Pierson	120, 896
Frame for drying laces, &c.	H. Chatai	119, 318
Frame for sashes, roof, sky-lights, &c.	J. L. Jackson	116, 714
Frame for school desks and seats	J. L. Riter	119, 132
Frame for the glasses of carriage-curtains	W. H. Rhodes	119, 722
Frame for traveling-bags	W. Roemer	110, 791
Frame for wire mattresses	G. C. Perkins	113, 559
Framing-joint	J. Newton	116, 623
Fresh meats, Preserving and transporting	W. Dugan	113, 505
Friction and ratchet clutch, Combined	A. W. Hall	122, 009
Friction-clutch	G. S. Reynolds	113, 566
Friction-clutch	W. C. Burch and G. D. Oatley	115, 818
Friction-clutch	G. Clisbee	117, 234
Friction-clutch	G. W. Hedges	120, 434
Friction-clutch for belt-pulleys	J. H. Blessing	113, 841
Friction-pawl or clutch-mechanism	W. R. Close	116, 413
Friction-pulley	J. Steger	117, 010

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Fringe-twister	H. Howard	114, 562
Frog and rail-coupling, Railway	J. W. Close	114, 409
Fruit and berry-box or basket	J. H. Marvil	114, 456
Fruit and vegetable parer	T. Searing	121, 669
Fruit-cans, Machine for filling and for cleaning off the tops of the same.	L. J. Wicks	122, 298
Fruit-drier	J. V. R. Miller	111, 467
Fruit-drier	B. F. Ells	112, 022
Fruit-drier	J. S. Biddle and S. Lingenfelter	112, 532
Fruit-drier	J. Allen	117, 029
Fruit-drier	C. H. Martin	121, 795
Fruit-drier and food-warmer	S. Richmond	112, 963
Fruit-gatherer	C. Ostrander	112, 622
Fruit-gatherer	J. C. Kearns	116, 718
Fruit-gatherer	G. Aldridge	116, 739
Fruit-gatherer	J. S. and A. M. Barry	117, 966
Fruits and vegetables, Preserving	F. C. Hooton	117, 884
Fruits, Drying and preserving	J. Lowe	116, 729
Fruits, meats, &c., Apparatus for drying	H. Endemann	120, 253
Fruits, Sealing cans for preserving	H. M. Anthony	118, 670
Fruit-trees, Compound for preserving	S. C. Gifford	114, 798
Fruit-trees to prevent the ravages of insects, &c., Treating.	S. J. Everett	111, 185
Fuel and kindling-wood	W. E. Wertenbaker	112, 995
Fuel, Artificial	B. F. Penny	111, 565
Fuel, Composition	J. Newton	113, 083
Fuel, Composition	E. H. Richter	116, 429
Fuel to furnaces, Machine for feeding	A. Rodgers and E. Tarrant	112, 636
Fuel, Treatment of peat for	E. J. Hulbert	122, 173
Funnel	L. P. Edwards	111, 525
Funnel	N. L. Price	118, 051
Funnel	B. French	120, 637
Funnel, Bung	J. Buck	118, 337
Funnel, Measuring	R. T. Fisher and G. F. Waldron	116, 580
Furnace	T. P. Scripser	115, 111
Furnace and furnace-bar	E. R. Austin	120, 361
Furnace and leer, Glass-flattening	J. Clabby	112, 322
Furnace, Blast	I. B. B. Case	118, 905
Furnace, Blast	H. Davies	121, 762
Furnace, Boiler	U. B. Stribling	113, 110
Furnace, Cupola	J. Dougherty	114, 422
Furnace, Cupola	A. G. Cook	115, 823
Furnace for burning pulverized fuel	T. R. Crampton	111, 616
Furnace for burning pulverized fuel under steam-boil- ers, evaporators, &c.	J. D. Whelpley and J. J. Stover	117, 705
Furnace for burning small coal or culm	A. Dart	111, 182
Furnace for draught-regulators, Steam-boiler	T. H. Moore	121, 398
Furnace for heating metal plates, calcining ores, and other purposes.	H. Chess	117, 382
Furnace for heating saws for hardening and tempering	J. Crookes	119, 078
Furnace for heating tires	J. Degree	120, 723
Furnace for melting ores and metals	W. S. Wood	116, 129
Furnace for oxidizing ores	I. M. Phelps	115, 769
Furnace for producing hydrogen and treating ores	J. R. Morris	113, 191
Furnace for puddling iron	R. Jenkins	116, 598
Furnace for reducing ores	J. E. Ware	114, 734
Furnace for roasting and smelting ores	W. Quann	120, 165
Furnace for roasting metallic ores	F. W. Crosby	115, 031
Furnace for roasting ores	J. P. Arey	115, 559
Furnace for roasting ores	F. Kesseler	116, 324
Furnace for roasting ores	S. F. Ambler	117, 360
Furnace for roasting ores	J. W. Bailey	120, 696
Furnace for roasting ores	R. F. Knox and J. Osborn	117, 430
Furnace for roasting ores of the precious metals	J. S. Akin	115, 673
Furnace for smelting lead-ores	J. V. Woodhouse	115, 921
Furnace for steam-boilers	M. K. Taylor	111, 154
Furnace for steam-boilers	J. C. Gripp	113, 424
Furnace for steam-boilers	T. F. Morrison	114, 024
Furnace for steam-boilers	C. D. Smith	119, 056
Furnace for steam-boilers	C. J. Harris	119, 065
Furnace for the manufacture of iron	E. Peckham	120, 318
Furnace for the manufacture of iron and steel	H. Ross and J. H. Clemens	118, 271
Furnace for the manufacture of malleable iron into steel.	H. Bessemer	117, 247
Furnace for treating ores, &c.	W. Ennis	112, 693
Furnace, Gas	J. Jordan	118, 947
Furnace, Gas-burning	J. Green	115, 193
Furnace, Hot-air	P. Martin	110, 664
Furnace, Hot-air	L. Bonnell	110, 731
Furnace, Hot-air	W. D. Bartlett	110, 889
Furnace, Hot-air	C. Allen	111, 027
Furnace, Hot-air	S. B. Sexton	112, 081
Furnace, Hot-air	B. F. Campbell	112, 123

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Furnace, Hot-air	J. R. Nichols	113, 197
Furnace, Hot-air	J. L. Pfaw, jr.	114, 035
Furnace, Hot-air	E. Clark	114, 528
Furnace, Hot-air	J. M. Blackman	115, 270
Furnace, Hot-air	M. A. Cushing	115, 444
Furnace, Hot-air	J. H. Burtis	115, 699
Furnace, Hot-air	W. B. Geddes	115, 841
Furnace, Hot-air	S. E. Hewes	115, 956
Furnace, Hot-air	H. Movers	116, 339
Furnace, Hot-air	B. Gommenginger	116, 701
Furnace, Hot-air	J. A. Lawson	116, 723
Furnace, Hot-air	J. A. Lawson	116, 724
Furnace, Hot-air	C. Wood	116, 908
Furnace, Hot-air	J. J. Vogelgesang	117, 225
Furnace, Hot-air	H. Randall	117, 814
Furnace, Hot-air	F. E. Chatard	118, 195
Furnace, Hot-air	G. G. Thomas	118, 299
Furnace, Hot-air	W. H. Turner	118, 988
Furnace, Hot-air	J. C. Barnes	119, 554
Furnace, Hot-air	J. G. Weldon	119, 955
Furnace, Hot-air	R. R. Finch	120, 257
Furnace, Hot-air	G. W. Walker	120, 406
Furnace, Metallurgic	J. Y. Smith	120, 005
Furnace or oven, Blast-heating	G. H. Lagorce	115, 870
Furnace, Portable	D. B. Montague	112, 164
Furnace, Portable	J. Reynolds	112, 961
Furnace, Portable	W. D. Robertson	112, 965
Furnace, Portable	H. Beatty	118, 095
Furnace, Portable	B. G. Fitzhugh	119, 977
Furnace-pot	J. Ballou	115, 677
Furnace, Puddling	J. Neville	114, 465
Furnace, Puddling	S. Bunn	114, 641
Furnace, puddling, Rotary	W. Boynton	118, 674
Furnace, Refuse-burning	G. and B. J. Goodsell and J. Been, jr.	116, 829
Furnace, Reverberatory	J. Davis	114, 774
Furnace, Reverberatory, and heating rims of car-wheels.	T. W. Lyon	114, 696
Furnaces and stoves, Draught-regulator for	F. E. Chatard, jr.	122, 105
Furnaces, &c., Blast by steam-jet for	P. W. Mackenzie	114, 163
Furnaces, Apparatus for distributing and feeding powdered fuel to.	T. R. Crampton	111, 615
Furnaces, Apparatus for feeding pulverized fuel to.	T. R. Crampton	111, 614
Furnaces, Apparatus for feeding fuel into	J. Y. Smith	120, 007
Furnaces, Apparatus for feeding pulverized fuel to.	J. Y. Smith	120, 680
Furnaces, Apparatus for feeding pulverized fuel to metallurgic and other.	J. Y. Smith	120, 008
Furnaces, Apparatus, for feeding with fuel.	G. F. Deacon	116, 165
Furnaces, blast, Apparatus for feeding	L. S. Goodrich	115, 305
Furnaces, blast, Construction and mode of working.	H. Bessemer	117, 246
Furnaces, Drop-grate for	W. Shepherd	118, 062
Furnaces, Feeding sawdust to	A. J. Enslaw	120, 052
Furnaces, Locomotive-boiler	A. J. Stevens	111, 884
Furnaces, metallurgical, Construction and operation of.	H. Bessemer	117, 250
Furnaces, metallurgic, Lining for	J. Y. Smith	120, 006
Furnace, Soldering	C. Seimel	113, 803
Furnaces, Protecting the hearths of	H. W. Ellicott	110, 639
Furnaces, Puddling and other	J. A. Jones, R. Howson and J. Gjers	114, 151
Furnaces, Puddling and other	A. Pollock	119, 182
Furnaces, puddling and other, "Fix" for	A. Reese	114, 854
Furnaces, Removing slag from	J. Thomas	111, 789
Furnaces, Smoke-jack for	B. F. Smith	118, 833
Furnace, Steam-boiler	G. H. Diehl	121, 933
Furniture, Composition for painting and staining	H. K. Wilson	120, 605
Furniture, Extensible	J. M. Dennis	121, 596
Furniture-pad	D. H. Cook and H. Winsen	112, 686
Furniture, Printers'	R. B. Topham	110, 695
Furniture, Printers'	B. B. Blackwell	118, 425
Furniture-tip	J. F. Akerstein	116, 392
Furs, Dyeing and coloring	A. Müller	116, 211
Fuse, Blasting	R. Uren	114, 233
Fuse, Electric	H. J. Smith	112, 859
G.		
Gag, Animal	W. H. H. Hallock	120, 062
Gaiter	P. E. Clark	113, 259
Gaiter-pattern	S. Hodgins	121, 367
Galvanic battery	E. A. Hill	114, 006
Game-board	G. W. Kintz	118, 249
Games, Combination apparatus for	C. N. Hoyt	117, 780

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Game-signal	W. M. Tileston	116, 117
Gang-plow and cultivator, Combined	J. A. Medaris	111, 228
Gang-plow and cultivator, Combined	O. Sampson	112, 079
Gang-saw mills, Roll for	H. F. Snyder	115, 538
Garden-bed border	J. E. Dickson and S. Richmond	113, 145
Garden-tool for trimming sods	A. Tournier	117, 485
Garden-walks, Machine for cleaning	P. Boice	112, 012
Garments, Adjustable and detachable strap for	S. L. Clemens	121, 992
Garments, Adjustable and detachable strap for	H. C. Lockwood	122, 038
Garments, Apparatus for fitting and laying out	W. H. Mayer	121, 642
Garments, Attachment for producing sleeves and cuffs of	J. C. Reed	120, 324
Garter, Metallic	H. A. House	112, 344
Gasalier	J. H. Seaman	116, 353
Gasalier	J. H. Seaman	116, 359
Gasalier	J. H. Seaman	116, 360
Gas and air, Apparatus for carbureting	S. Whitney	115, 798
Gas and air, Carbureter for	M. P. Coons	116, 563
Gas and other lights, Apparatus for igniting	W. Klinkerfues	114, 950
Gas and other lights, Apparatus for igniting	W. H. Smith	115, 373
Gas and smoke-consuming apparatus	G. Marlow	120, 299
Gas, &c., Apparatus for exhausting	R. Laidlaw and J. Thomson	114, 156
Gas and water fittings, Machine for tapping	C. B. Long	113, 314
Gas and water pipe, Coating	N. Clnte	112, 786
Gas-apparatus	A. L. Bogart	110, 729
Gas-apparatus	R. Morton	118, 967
Gas-apparatus for carbureting and generating	F. A. Fisher	112, 026
Gas by electricity, Apparatus for lighting and extinguishing	J. P. Tirrell	121, 302
Gas, Apparatus for lighting by electricity	J. Vansant	120, 469
Gas, Apparatus for the manufacture of	E. Jones	122, 025
Gas-apparatus, Portable	G. Lowden	120, 590
Gas-brackets, Connecting joint and cock of	L. Hull	118, 722
Gas-burner regulator	W. Jones	120, 882
Gas by electricity, Apparatus for lighting and extinguishing	J. P. Tirrell	121, 301
Gas, carbonic-acid, Apparatus for generating	J. D. O'Donnell	117, 805
Gas, coal, Apparatus for the manufacture of	W. Gibson	119, 135
Gas-cocks, Apparatus for automatically operating	S. Gardner, jr	118, 008
Gas, Composition to render fabrics impervious to	G. L. Burnham	120, 368
Gases, Apparatus for extinguishing and purifying	P. Munzinger	118, 472
Gases, Apparatus for purifying	A. F. Havens	118, 609
Gases from petroleum, &c., Apparatus for generating	A. I. Ambler	118, 575
Gas-fitting	G. Rosenthal	120, 329
Gas-flame expander	H. Whitney	120, 139
Gas from hydrocarbons, Producing	X. Moussard	113, 192
Gas from retorts, Apparatus for exhausting	S. Trumbore	115, 788
Gas from solid carbon, Producing	L. Stephens	112, 088
Gas-furnace and forge	J. R. Morris	120, 764
Gas-generating and blast-heating apparatus for metallurgic and other purposes	J. D. Whelpley and J. J. Storer	111, 288
Gas, hydrocarbon, Manufacture of	F. A. Sabbaten	116, 994
Gas, hydrogen, Apparatus for generating and carbureting	H. C. Terry	118, 953
Gas, illuminating, from petroleum, Manufacture of	W. C. and G. W. Wren	120, 409
Gas, illuminating, Manufacture of	S. Hevner	114, 559
Gas, illuminating, Manufacture of	A. S. Cameron and W. E. Everett	114, 642
Gas, illuminating, Manufacture of	F. King	117, 645
Gas, illuminating, Manufacture of	J. Kidd	119, 034
Gas, illuminating, Manufacture of	D. Davison	119, 329
Gas, illuminating, Manufacture of	T. G. Springer	121, 679
Gas-jets, Apparatus for lighting by induced currents of electricity	A. L. Bogart	119, 561
Gas-joint for extension drop-lights, Sliding	C. Deavs	115, 447
Gas-packing	W. W. Girdwood	119, 027
Gas-light apparatus, Electro-magnetic	A. N. Allen and R. H. Dewey	119, 492
Gas-lighter, Automatic	A. N. Allen and R. H. Dewey	120, 226
Gas-lighter, Electric	A. N. Allen and R. H. Dewey	121, 308
Gas-lighting and extinguishing apparatus, Portable	J. Vansant	113, 370
Gas-lighting apparatus	E. D. McCracken	120, 083
Gas-lighting apparatus, Electro-magnetic	F. Heyl and P. Diehl	116, 054
Gas-lighting apparatus, Magneto-electric	A. N. Allen and R. H. Dewey	116, 660
Gas-lights, Means for extinguishing	C. H. Harwood	118, 239
Gas-machine	T. G. Springer	112, 975
Gas-machine	W. A. Simonds	114, 558
Gas-machine	T. B. Fogarty	115, 591
Gas-machine	T. B. Fogarty	115, 592
Gas-machine	T. B. Fogarty	115, 593
Gas-machine	T. B. Fogarty	115, 594
Gas-machine	T. B. Fogarty	115, 595
Gas-machine	T. B. Fogarty	115, 596

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Gas-machine.....	T. B. Fogarty	115, 597
Gas-machine.....	T. B. Fogarty	119, 227
Gas-machine.....	T. G. Springer	119, 663
Gas-machine.....	H. S. Maxim	120, 302
Gas-machine.....	W. T. McMillen.....	121, 824
Gas, Means of lighting.....	E. D. McCracken.....	120, 082
Gasoliers, Sustaining device for center drop-lights of.....	C. Deavs	118, 349
Gasoline-attachment for cooking-stoves	F. Hainsworth.....	113, 513
Gas or vapor burners, Protector for	R. Nutting.....	114, 329
Gas-pipes, Dirt-chamber for.....	M. N. Dial	113, 749
Gas-regulator	H. Shutte	114, 206
Gas-regulator	O. Dean	114, 272
Gas-regulator	J. S. Merrican.....	114, 699
Gas-regulator	H. Gerner	116, 176
Gas-regulator	P. Keller	116, 321
Gas-regulator	C. C. Place	116, 349
Gas-regulator	J. Keeling	120, 280
Gas-retort	J. H. Smith	114, 872
Gas-retort	D. Davison	117, 610
Gas-retort	H. H. Edgerton	119, 586
Gas-retorts, &c., Enameling	D. W. Clark	114, 763
Gas-retorts, Apparatus for charging and discharging.....	J. J. Holden	114, 682
Gas-works, Center-seal for	P. Munzinger	115, 632
Gas-works, Exhaust-apparatus for	P. W. Mackenzie.....	115, 334
Gas-works, Hydraulic main of	C. Collier	119, 919
Gate	S. A. Darrach	109, 509
Gate	R. Gidley	110, 646
Gate	G. A. Slater	110, 687
Gate	A. J. Dimick	110, 750
Gate	R. H. Hudgin	111, 124
Gate	W. G. Franklin	111, 190
Gate	J. K. Harris	111, 201
Gate	P. O'Neill	111, 238
Gate	H. B. Crandall.....	111, 322
Gate	J. W. Sibley	111, 266
Gate	J. Pool	111, 676
Gate	C. W. Saladee	111, 780
Gate	C. N. Owen	112, 174
Gate	C. Wright	112, 762
Gate	N. Parker	112, 843
Gate	P. S. Crawford	112, 904
Gate	James B. Cotton	113, 020
Gate	J. B. Irwin	113, 232
Gate	U. W. Hardy	113, 294
Gate	B. F. Palmer	113, 334
Gate	R. T. Browne	114, 101
Gate	J. L. Meredith	114, 177
Gate	D. M. Cochran and L. A. Hawkins.....	115, 167
Gate	G. Mott	115, 883
Gate	N. Long	116, 202
Gate	J. A. Wood	116, 526
Gate	P. S. Crawford	117, 263
Gate	R. Gidley	117, 473
Gate	E. Higgins	117, 418
Gate	W. H. Kosht	117, 431
Gate	M. E. Livingston.....	117, 901
Gate	H. Root	118, 393
Gate	S. G. Wood	119, 101
Gate	J. S. Benedict	119, 110
Gate	W. Hathaway.....	119, 141
Gate	B. Snyder	119, 421
Gate	S. Smyth	119, 661
Gate	R. J. Wood	120, 358
Gate	G. C. Bovey	120, 484
Gate	D. Creighton	120, 573
Gate	W. A. Penney	120, 770
Gate	A. H. Betts	120, 932
Gate	W. I. Ludlow	121, 181
Gate	J. D. Morrison	121, 188
Gate	V. Campbell	121, 654
Gate	J. Fausett	122, 003
Gate	M. Martin	122, 125
Gate and door spring.....	A. T. Boon and L. Mills	116, 800
Gate, Bridge	E. R. Coyne	114, 414
Gate, Farm	H. P. Haskin	113, 657
Gate, Farm	M. Barthel	117, 143
Gate, Farm	W. D. Carlton.....	117, 381
Gate, Flood	A. H. Adams	113, 001
Gate, Flood	J. W. Edgerton	116, 170
Gate, Flood	H. O. Way	116, 247
Gate for draw-bridges	F. Pairan	113, 916

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Gate for gangs for marble-saws	L. B. Clogston	119, 968
Gate for swing-bridges	A. D. Northway	121, 892
Gate for turbine water-wheel	S. A. Prescott	112, 956
Gate, Railway	S. H. Heatwole	114, 940
Gate, Railway	R. Ramsey	116, 754
Gate, Self-acting	F. Whitaker	119, 438
Gate, Self-acting	J. A. Wood	121, 442
Gate, Self-operating	W. H. Phillips	120, 322
Gates, Latch for	H. W. Robie	122, 061
Gates, Locking-latch for	J. L. Devol	115, 448
Gate, Water	W. C. Hopwood	116, 445
Gate, Water	D. J. Moffitt	116, 854
Gate, Water	W. P. Hubbard	117, 781
Gate, Water-wheel	P. W. Davis and D. D. Burnell	114, 650
Gauge and try-square, Combined	F. Castle	112, 730
Gauge and try-square, Combined	F. Castle	116, 805
Gauge, Axle	D. C. Wetsell	115, 549
Gauge, Boot and shoe-heel	S. Ward	118, 499
Gauge, Carpenters'	D. W. Simmons	115, 368
Gauge, Clapboard	W. E. Babcock	116, 256
Gauge-cock	B. E. Lehman and R. Ross	115, 746
Gauge-cock	P. McGrath	117, 907
Gauge for countersinks	A. Wheeler	116, 901
Gauge for mortising-machines	T. Beach	116, 538
Gauge for saw-filer	J. E. Emerson	111, 829
Gauge for saw-tables	F. L. Sprague	112, 861
Gauge for stave-jointers	W. Race and S. D. Hooper	121, 418
Gauge for the construction of seat-cushions	J. W. Williams	111, 892
Gauge, Pressure	R. C. Blake	115, 420
Gauge, Pressure	J. B. Eads and H. Flad	117, 394
Gauges, gas-fitters', Attachment to	H. Getty	118, 603
Gauge, Siding	W. E. Lewis	110, 980
Gauge, Siding	J. Mason	120, 301
Gauge, Steam	R. C. Blake	116, 669
Gauge, steam, Thermometric	G. Lightbody	120, 201
Gauge, Surface	W. F. Cornell	115, 438
Gauge, Watchmakers'	T. Noel	115, 090
Gauge, Water	J. E. Richard	121, 661
Gauge, Water, for steam-boilers	M. Doyle	119, 454
Gauge, Weather-board	M. Newlove	113, 554
Gauge, Weather-board	H. Fellows	115, 945
Gauge, Weather-board	G. W. Tinsley	119, 200
Gear-cutters, Machine for shaping and cutting	F. A. Pratt	112, 379
Gear, Hoisting	G. Dnerre	120, 951
Gearing and ungearing pinions and wheels	J. Skinner	112, 187
Gearing for harvesters	J. Farrington	116, 032
Gearing, Variable cut-off	J. E. McKay	118, 952
Gearing, Wagon	J. Shoulder	115, 366
Gear, Spherical	T. Weaver	117, 706
Gelatine, &c., Treating marine plants to obtain	G. Bourgade	112, 535
Generating and burning vapor from hydrocarbons, Apparatus for	J. Kidd	110, 857
Generating, carbureting, and burning hydrogen-gas, Apparatus for	B. Sloper	115, 369
Generator, Drop-tube steam	L. Wiegand	111, 596
Generator, Gas	J. Butler	111, 174
Generator, Portable steam	J. E. Woodruff	112, 761
Generator, Steam	M. N. Lynn	110, 862
Generator, Steam	S. West	111, 159
Generator, Steam	C. Ahrens and F. Kamman	111, 298
Generator, Steam	L. C. Field	111, 527
Generator, Steam	J. L. Judge	112, 049
Generator, Steam	J. C. Woodhead	112, 402
Generator, Steam	E. D. Lacy	113, 533
Generator, Steam	J. F. Allen	113, 613
Generator, Steam	E. Weston	113, 955
Generator, Steam	W. H. Ivens	114, 146
Generator, Steam	T. W. H. Moseley	114, 702
Generator, Steam	E. P. Doyen	116, 167
Generator, Steam	G. A. Barnard	116, 796
Generator, Steam	G. H. Corliss	117, 385
Generator, Steam	E. Day	117, 519
Generator, Steam	H. M. and J. F. Rulon	117, 569
Generator, Steam	S. W. Emery and E. P. Doyen	117, 613
Generator, Steam	O. Clarke	118, 197
Generator, Steam	R. W. Dugan and B. F. Clark	118, 702
Generator, Steam	J. Mann	118, 735
Generator, Steam	J. Eberhardt	119, 225
Generator, Steam	S. L. Wiegand	119, 257
Generator, Steam	G. F. Burkhardt	119, 310
Generator, Steam	W. Byers	120, 937

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Generator, Steam	A. D. Brock	121, 079
Generator, Steam	J. J. Jordan	122, 027
Generator, steam, Return bend for	S. L. Wiegand	119, 256
Generator, steam, Rotary	N. T. Edison	116, 233
Generator, steam, Sectional	D. C. Howell	122, 019
Generator, Tubular, steam	J. M. Hicks	113, 052
Gig-saddle	G. D. Gillett	115, 599
Gig-saddle	J. W. Crouch	120, 499
Girder	Z. S. Ayres	120, 223
Girder, Iron	P. H. Jackson	121, 374
Girder-rest for timbers	J. Preston	114, 531
Girders, beams, &c., Homogeneous metal for casting	W. F. Brooks	113, 336
Girt	W. C. Hays and J. C. Pancake	118, 610
Glass and metal surfaces, &c., Ornamenting and dressing	G. F. Morse	121, 119
Glass, Flexible fastening for	W. H. Taylor	112, 193
Glass for spectacles, &c., Tinted	T. A. Wilson	113, 124
Glass for the manufacture of spectacles	W. A. Wilson	112, 877
Glass globes, Apparatus for cutting	J. T. H. Richardson	117, 208
Glass, Manufacture of	W. H. Balmain	116, 137
Glass, Ornamentation of	W. G. Webb	121, 696
Glass, Staining	E. A. Goodes	112, 703
Glass, Tool for molding	D. Challinor	115, 569
Globe for gas-lights	T. Trudeau	117, 456
Globe for lamps, Glass	G. M. Irwin	120, 747
Globe-holder and cooler for vapor-burners, Combined	J. J. and F. G. Palmer	112, 624
Glossing and fluting iron	C. W. Monroe	121, 885
Glove	W. W. Whitaker	113, 230
Glove	J. H. Putman	113, 695
Glove	E. W. and A. A. Avery	114, 091
Glove	R. D. Burr	115, 277
Glove	H. Z. and A. J. Kasson	121, 630
Glove	W. W. Whitaker	121, 832
Glove	W. W. Whitaker	121, 833
Glove	E. V. Whitaker	122, 091
Glove-fastener	M. B. Foote	117, 530
Glove, Gauntlet	V. Price	119, 642
Glucose sirup and sugar, Manufacture of	J. J. Groscheinze	115, 051
Glue, Prepared	J. Fr. Peting	120, 996
Gluing-table	S. P. Grocock and W. J. Brassington	121, 510
Gold amalgam and quicksilver, Device for saving	O. H. Young and D. J. Vaughn	111, 713
Gold amalgam, &c., Apparatus for saving	G. R. Evans	117, 162
Gold amalgamating in tailings, Apparatus for	T. A. Pratt	121, 296
Gold and silver, Amalgamation of	A. B. Crosby	119, 264
Gold and silver, Apparatus for amalgamating	I. M. Phelps	116, 865
Gold and silver ores, Amalgamating-pan for	I. S. Parke	113, 791
Gold for dental purposes, Process for preparing	E. C. and L. Kearsing	122, 029
Gold, silver, or plated ware, Mode of manufacturing	H. G. Reed	112, 077
Goods, saddlery, Composition	J. Straus	121, 215
Governor	H. F. Shaw	121, 963
Governor and cut-off device for steam-engines, Automatic	C. Moore	116, 340
Governor, Engine	J. D. Lynde	112, 058
Governor, Engine	R. K. Huntoon	114, 296
Governor, Engine	B. S. Lawson	120, 932
Governor for direct-acting engines	A. S. Cameron	112, 416
Governor for electro-motors	T. A. Edison	111, 112
Governor for steam and other engines	C. P. Bowen	120, 366
Governor for steam-engines	C. Waters	110, 703
Governor for steam-engines	G. F. Pottle	111, 677
Governor for steam-engines	J. A. Lynch	112, 159
Governor for steam-engines	H. B. Weaver	116, 248
Governor for steam-engines	R. K. Huntoon	116, 596
Governor for steam-engines	C. M. Langley	117, 548
Governor for steam-engines	J. D. Lynde	117, 903
Governor, Steam	G. W. Clark	120, 856
Governor, Steam-engine	C. A. Condi	112, 420
Governor, Steam-engine	B. S. Lawson	116, 963
Governor, Steam-engine	A. K. Kline	121, 109
Governor-valve, Automatic	J. B. Potter	119, 405
Governor-valve for steam-engines	W. A. Cogswell	115, 577
Grading and ditching machine	J. W. Fawkes	118, 707
Grading-machine	J. F. Hanna	119, 353
Graduating scale-beams, Machine for	W. W. Reynolds	121, 420
Grafting-instrument	D. S. Wagener	121, 222
Grain and other materials, Reservoir for	G. H. Johnson and B. Kreischer	112, 927
Grain and seed-separator	J. Boozer	122, 143
Grain and straw shaker	W. H. and P. Bott	117, 040
Grain-bag holder	W. P. Leland	114, 952
Grain-binder	S. D. Locke	111, 069
Grain-binder	P. A. Perry	113, 792

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Grain-binder.....	C. G. Dickinson.....	115, 284
Grain-binder.....	J. Youll.....	118, 091
Grain-binder.....	O. B. Ross.....	118, 975
Grain-binder.....	A. Philippi.....	119, 241
Grain-binder.....	M. Summers and S. B. Lane.....	119, 668
Grain-binder.....	M. T. Ridout.....	120, 828
Grain-binder.....	S. D. Locke.....	121, 290
Grain-carrier.....	O. M. Gould.....	121, 867
Grain-cleaner.....	J. H. Weaver.....	116, 122
Grain-cleaner and fertilizer-sifter.....	J. A. Green.....	112, 334
Grain cleaner and scourer.....	E. K. Kellogg.....	114, 688
Grain cleaner and separator.....	W. A. Cockrill.....	115, 707
Grain-cleaning machine.....	J. Sternberg.....	112, 087
Grain cleaning, scouring, and decortivating machine.....	J. A. Maloney.....	120, 987
Grain, coffee, and rice cleaner.....	A. and I. D. Crawford.....	111, 323
Grain-drier.....	L. S. Chichester.....	110, 896
Grain-drier.....	L. Abbott.....	111, 163
Grain-drier.....	J. Buckingham.....	112, 118
Grain-drier.....	W. Stark and J. G. Fisher.....	113, 219
Grain-drier.....	W. Blakey.....	113, 840
Grain-drier.....	A. Robert.....	115, 240
Grain-drier.....	J. Burns.....	115, 431
Grain-drier.....	T. W. Eaton.....	115, 833
Grain-drier.....	A. W. J. Mason.....	118, 954
Grain-drier.....	S. V. Appleby.....	119, 493
Grain-drier.....	C. F. Chichester.....	121, 588
Grain drier, cooler, and scourer.....	L. S. and C. F. Chichester.....	121, 847
Grain-drill and corn-cultivator, Combined.....	D. B. Platt.....	111, 675
Grain for food, Preparing.....	R. B. Fitts.....	115, 947
Grain from railway-cars, Device for discharging.....	S. W. Hawes.....	120, 065
Grain-hulling machine.....	M. Hoffman.....	113, 770
Grain, Machine for cleaning.....	M. T. Nesbit.....	113, 686
Grain, Machine for cleaning.....	N. Reece.....	117, 681
Grain, Machine for thrashing and separating.....	S. Filby.....	118, 797
Grain, Mode of dumping.....	J. Sypes.....	119, 799
Grain, ores, &c., Apparatus for delivering into grind- ing-mills.....	J. D. Whelpley and J. J. Storer.....	111, 593
Grain, Preparing and mashing.....	C. H. Frings.....	113, 997
Grain-registering device.....	W. H. Stinson.....	114, 723
Grain scourer and separator.....	S. H. Hindsell, H. W. Drake, and C. B. Way.....	113, 296
Grain-separator.....	J. Miller.....	114, 023
Grain-separator.....	D. Best.....	114, 097
Grain-separator.....	S. K. Ayres.....	114, 251
Grain-separator.....	P. Griswold.....	112, 447
Grain-separator.....	H. L. Whitman.....	114, 500
Grain-separator.....	D. Garver.....	114, 546
Grain-separator.....	P. Flickinger.....	114, 789
Grain-separator.....	L. C. Royer.....	114, 974
Grain-separator.....	M. Shreiner.....	116, 229
Grain-separator.....	J. D. Brunner.....	116, 549
Grain-separator.....	E. L. Kelly.....	117, 545
Grain-separator.....	F. A. Balch.....	118, 094
Grain-separator.....	W. H. Lawrence.....	120, 285
Grain-separator.....	C. S. Hall.....	120, 582
Grain-separator.....	S. Lessig, sr.....	120, 983
Grain-separator and fanning-mill.....	S. S. Hammond and J. S. Paden.....	112, 141
Grain-separator for thrashing-machines.....	J. H. Huntton.....	111, 347
Grain-separators, Metallic sieve for.....	J. A. Maloney.....	119, 626
Grain-spout.....	J. O. Frost.....	117, 531
Grain thrasher and cleaner.....	W. H. and J. Butterworth, jr.....	111, 431
Grain thrasher and separator.....	C. S. Hall.....	121, 939
Grain-thrasher and straw-carrier.....	R. Bryan.....	117, 736
Grain thrashing and separating machine.....	J. Culham.....	112, 424
Grand piano.....	G. Steck.....	116, 109
Grape-crusher.....	F. B. Schoenstein and A. Klein.....	120, 400
Grape-picker.....	G. A. Warner.....	119, 485
Grape-trellis.....	I. D. Custer.....	118, 348
Grapple.....	E. G. Crandal.....	112, 690
Grapple.....	C. La Dow.....	119, 157
Grapple.....	H. Whitall.....	119, 729
Grate.....	J. F. Phelps.....	115, 515
Grate and grate-bar.....	J. C. Grant.....	118, 604
Grate-bar.....	A. Fickett and C. C. Benton.....	111, 047
Grate-bar.....	J. T. Marshall.....	111, 223
Grate-bar.....	W. Muir and P. Butler.....	116, 080
Grate-bar.....	H. Collinson.....	116, 812
Grate-bar.....	J. A. Miller.....	118, 962
Grate-bar.....	A. W. Foster, jr.....	120, 188
Grate-bar.....	A. C. Fletcher.....	120, 733
Grate-bars, Tubular.....	W. H. Farris.....	114, 280

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Grate-bar, Water	W. H. Farris	113, 037
Grate-fender	G. Buchanan	120, 571
Grate, Fire	G. Wellhouse	112, 399
Grate, Fire	G. R. Moore	113, 908
Grate, Fire-place	W. Pulsfort	111, 971
Grate, Fire-place	J. W. Thoniley	112, 986
Grate, Fire-place	W. H. Garrett	113, 757
Grate, Fire-place	A. Greenaway and H. J. Needham	116, 438
Grate, Fire-place	J. Caven	120, 490
Grate, Fire-place	M. S. Watkins	120, 917
Grate, Fire-place	D. Pangle	122, 050
Grate for burning coal-screenings	G. W. Hildreth	112, 246
Grate for steam-boilers, Water	T. Stone	120, 342
Grate for stoves, &c	J. Churchman	114, 762
Grate, Furnace	G. R. Moore	113, 324
Grate, Furnace	E. F. Steele	117, 009
Grate, Furnace	C. M. Northrup	117, 319
Grate, Furnace	B. F. Smith	118, 884
Grater	H. C. White	114, 070
Grater, Vegetable	J. Wehrle and W. Whittlinger	112, 872
Grater, Vegetable	C. R. Peirce	117, 924
Grate, Stove	W. S. Thomas	111, 493
Grate, Stove	C. R. Harvey and J. H. Foote	114, 290
Grate, Stove	P. Boyden	115, 021
Grate, Stove	D. A. Flood and D. W. Brown	115, 590
Grate, Stove	S. P. Davis	115, 827
Grate, Stove	M. R. Barr	116, 396
Grate, Stove	G. R. Moore	117, 194
Grate, Stove	G. R. Moore	118, 874
Grate, Stove	C. O. Foley	119, 343
Grate, Stove	J. A. Price	119, 787
Grate, Stove	R. Moss	120, 992
Grate, Stove	W. A. Greene	121, 097
Grate, Stove	W. Doyle	121, 236
Grate, Stove	T. Hartley	121, 303
Grate, Stove	W. Sanford	121, 733
Grate, Water	J. Ryan	111, 387
Gravel and sand heater	P. Le Goulion	110, 861
Griddle	T. D. Gail	111, 835
Griddle-greaser	L. Ward	117, 130
Griddle-lifter	M. D. Murphy	116, 739
Gridiron	C. Noble	120, 528
Grinder for harvester-knives	P. W. Vaughan	122, 083
Grinding pan and amalgamator	W. H. Thoss	112, 395
Grinding phosphatic substances	G. T. Lewis	114, 693
Grinding-plate	E. S. Howland	113, 433
Grindstones, Journal-box for	P. P. Child	118, 688
Griper for cylinder printing-presses	V. E. Mauger	116, 616
Griper for printing-presses	T. J. Plunket	117, 566
Grist-mill and cotton-seed huller, Combined	J. W. Smith	114, 215
Ground-marker and furrower	G. W. Martin, W. G. Parrish, and J. A. Petrie	119, 628
Guard for circular saws	G. W. Shipman	112, 504
Guard for legs of furniture, Spring	D. F. Hartman	114, 812
Gudgeon for shafts	W. W. Eastman and W. H. H. Morris	119, 017
Guide for circular saws	D. W. Washburn	114, 235
Guide for silk-winding	J. N. Leonard	121, 879
Guiding and gauging mechanism for roller-dies	H. Waters	114, 735
Gum, Chewing	T. Adams	111, 798
Gun-barrel	R. R. Moore	122, 187
Gun, Battery	W. Fields	113, 996
Gun-carriage	J. B. Eads	115, 181
Gun-carriage	T. R. Timby	120, 553
Gun-lock	G. B. Warren	115, 996
Gun-lock	J. Albright	116, 252
Gun-lock	W. N. Bennett	117, 245
Gun-lock	W. R. Evans	119, 020
Gun-lock	A. Miller	119, 386
Gun-lock	T. J. Massie	120, 388
Gun, Machine	L. Christophe and J. Montigny	121, 277
Gun, machine, Operating	G. O. Kinne	120, 588
Gun, Magazine	H. J. Drew	112, 563
Gunpowder	A. Molino	118, 040
Gunpowder, Manufacture of	C. W. Curtis	120, 862
Gun-sight	F. A. Churchhill	112, 124
Gutter-fastening	W. L. Rogers	118, 556
Gutters for buildings, Machine for making	A. K. P. Buffum	117, 255
Gutter-strap	A. B. Schulz	118, 061
H.		
Hair, Apparatus for arranging	G. Lieberknecht	117, 648

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Hair-clipping device.....	F. C. Richardson.....	114, 477
Hair-cloth, Imitation.....	C. Sheriff.....	121, 674
Hair, Compound for cleansing the.....	A. Miles.....	121, 536
Hair, Compound for curling.....	E. L. Parsons.....	116, 215
Hair, Compound for dyeing.....	J. S. Letord.....	116, 462
Hair-curl, and apparatus for manufacturing the same.....	J. Mayer.....	122, 183
Hair-curler.....	I. S. Marcy.....	116, 731
Hair-curler.....	C. Markley.....	117, 439
Hair-curler.....	C. H. Barney.....	119, 960
Hair-dressing.....	F. R. Taylor.....	114, 223
Hair-dye and cosmetic.....	J. J. Wild.....	117, 583
Hair, Medical compound for.....	P. Schlicher.....	119, 052
Hair-pin.....	C. M. Gormly.....	111, 635
Hair-pin.....	E. Hewitt and J. McAuliffe.....	115, 855
Hair-puff or roll.....	J. D. Oppenheimer.....	110, 782
Hair-restorative.....	W. P. Thomas and J. F. Boardman.....	112, 749
Hair-ropes, Machine for untwisting and picking.....	G. Sanford.....	122, 285
Hair-switch.....	B. F. Burgess, jr.....	122, 153
Hair-tonic.....	S. A. Reybert.....	112, 632
Hair weaving and mounting apparatus.....	N. Demongeot.....	121, 997
Halter.....	J. Thornton.....	113, 468
Halter.....	J. Carpenter.....	121, 704
Halter-buckle.....	P. A. Snyder.....	117, 214
Halter for horses.....	I. P. Osborn and W. A. Bayhan.....	118, 877
Hame.....	A. McCracken.....	114, 318
Hame.....	G. J. Letchworth.....	116, 725
Hame-fastener.....	A. Sweetland.....	115, 908
Hame for harness.....	J. Thornton and E. G. Latta.....	113, 945
Hame for harness.....	P. B. Watson.....	118, 310
Hame for harness.....	C. H. Drury.....	119, 697
Hames, Attachment to.....	J. Thornton and E. J. Latta.....	113, 469
Hames-fastening.....	H. B. Grumling.....	110, 848
Hammer.....	G. M. Young.....	115, 008
Hammer-flange butt of piano action.....	D. L. Bollermann.....	121, 077
Hammer, Nail.....	H. Cheney.....	116, 533
Hammer, Nail.....	H. M. Stocum.....	121, 682
Hammer, Power.....	I. Althouse.....	120, 017
Hammer, Shoemakers'.....	A. Clarke.....	112, 902
Hammer, Tilt.....	P. Breen.....	120, 412
Hammock-supporter.....	J. M. K. Southwick.....	115, 128
Hams, Putting up.....	S. E. Kelley.....	112, 467
Hand-car.....	D. Johnston.....	116, 062
Hand-card, Flexible.....	G. F. Ells.....	117, 755
Hand-car, Railroad.....	J. C. Hearne.....	115, 609
Handle for carriage-doors.....	E. Wells.....	118, 083
Handle for cross-cut saw.....	T. S. Disston.....	110, 751
Handle for cross-cut saw.....	E. W. Tilton.....	112, 094
Handle for cross-cut saw.....	R. Reid.....	114, 708
Handle for garden-implements.....	A. A. Porter.....	115, 352
Handle for shoemakers' tools.....	C. G. Wegner.....	115, 257
Handles to satchels, &c., Device for fastening.....	M. Schwerin.....	116, 634
Handles to saws, Method of attaching.....	S. W. Valentine.....	111, 792
Handles to scrapers, Method of attaching.....	E. C. Locke.....	111, 952
Handle-strap for traveling-bags.....	A. Alexandre.....	119, 293
Hand-protector.....	J. Turnbull.....	121, 974
Hands, Apparatus for the development of the muscles of the.....	H. P. De Bruyn Kops.....	121, 269
Handsaw.....	O. H. Langdon.....	115, 323
Handsaws, Machine for grinding.....	E. S. Piper.....	111, 147
Haud spinning and reeling machine combined.....	W. P. Hatch.....	115, 465
Hand-stamp.....	M. P. Norton.....	110, 864
Hand-stamp.....	G. Rost.....	111, 386
Hand-stamp.....	H. Holt and W. W. Secombe.....	111, 844
Hand-stamp.....	J. Walters.....	112, 871
Hand-stamp.....	C. G. Tuft.....	114, 879
Hand-stamp.....	J. C. Moody.....	115, 763
Hand-stamp.....	J. Sloper.....	115, 989
Hand-stamp.....	P. O. Wright.....	116, 132
Hand-stamp.....	E. H. Barney.....	117, 593
Hand-stamp.....	S. S. Turner, and C. and G. M. Stevens.....	117, 832
Hand-stamp.....	B. B. Hill.....	121, 286
Hanger for revolving shafting.....	A. B. Couch.....	113, 744
Hank for sails.....	D. Crowell, jr.....	115, 712
Hank for sails.....	G. C. Williams.....	121, 033
Harness.....	G. W. Dutton.....	120, 049
Harness.....	J. C. Spooner.....	120, 118
Harness.....	A. M. Lawton.....	120, 445
Harness, Attachment for.....	W. A. Blundell.....	112, 889
Harness, Backband-hook for.....	S. Reynolds.....	116, 993
Harness, Breeching-holder for.....	F. L. Churchill and R. C. Beach.....	114, 925
Harness, Check-hook and terret for.....	M. V. Kay.....	115, 061

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Harness, Collar-cap for.....	A. P. Mason.....	116, 465
Harness, Hame-tug for.....	P. R. Dawson.....	117, 994
Harness, Loop for.....	A. M. Osborn.....	118, 046
Harness-mounting.....	C. H. Thornton.....	121, 032
Harness-mounting, Mode of covering.....	W. Faucet.....	122, 163
Harness, Neck-yoke of.....	A. Parlman.....	110, 932
Harness-pad.....	M. W. Pond.....	112, 073
Harness-pad.....	J. H. Garrett.....	121, 863
Harness-pads, Method of making.....	C. Gahr.....	121, 352
Harness-pad-tree.....	W. V. Kay.....	115, 062
Harness-rosette.....	W. D. Davis, C. W. Blakeslee, and J. C. Peck.....	112, 906
Harness-saddle.....	A. Gilliam.....	110, 969
Harness-saddle.....	V. Borst.....	113, 136
Harness-saddle.....	A. Gilliam.....	116, 946
Harness-saddle.....	W. and W. E. Leonard.....	118, 137
Harness-saddle.....	V. Borst.....	119, 112
Harness saddle-tree.....	P. H. Wiedersum.....	111, 502
Harness saddle-tree.....	J. H. Martin.....	112, 061
Harness saddle-tree.....	J. H. Martin.....	113, 541
Harness saddle-tree.....	P. H. Wiedersum.....	116, 518
Harness saddle-tree.....	P. H. Wiedersum.....	116, 519
Harness saddle-tree.....	J. H. Martin.....	117, 309
Harness saddle-tree.....	T. G. Moore.....	118, 547
Harness, Shaft-tug for.....	C. C. Lee.....	121, 177
Harness, Single.....	C. R. Stuart.....	120, 344
Harness-snap.....	A. B. Woodward and W. Bruen.....	111, 710
Harness, Thill-holder for.....	J. A. Putt.....	118, 388
Harness, Trace-carrier for.....	E. A. Cooper.....	118, 344
Harness-trimming.....	J. Bauer.....	116, 536
Harness-trimming.....	S. Wiener.....	116, 904
Harness-trimming.....	J. Bauer.....	119, 914
Harrow.....	A. Friedmann.....	111, 445
Harrow.....	W. Fox.....	113, 286
Harrow.....	W. E. Robbins and G. Enderton.....	115, 525
Harrow.....	B. Johnston.....	116, 716
Harrow.....	J. Chellew.....	117, 149
Harrow.....	J. C. Center.....	117, 253
Harrow.....	J. Benson.....	117, 595
Harrow.....	J. L. Willoughby.....	118, 570
Harrow.....	W. Rennyson.....	118, 973
Harrow.....	D. A. Parkman.....	119, 397
Harrow.....	J. M. Payne.....	119, 398
Harrow.....	J. Wigle.....	120, 140
Harrow.....	E. W. Herendeen.....	120, 195
Harrow.....	J. Mathison.....	120, 204
Harrow.....	E. S. Herrington.....	120, 273
Harrow.....	W. Rennyson.....	121, 003
Harrow.....	C. and G. P. Tharp.....	121, 021
Harrow and cultivator.....	J. F. Jaquess.....	111, 125
Harrow and field-roller.....	A. S. Keagy.....	112, 149
Harrow and marker combined.....	S. Hutchinson.....	117, 079
Harrow, Combined.....	C. Wyckoff, jr.....	114, 244
Harrow, Corn.....	G. Hill.....	115, 055
Harrow, Revolving.....	J. Hill and J. G. Stewart.....	122, 251
Harrow, Revolving-disk.....	J. F. Pond.....	114, 707
Harrow, roller, and seed-planter, Combined.....	R. J. Colvin.....	115, 026
Harrow, Rotary.....	J. W. Barton and T. Holmes.....	112, 676
Harrow, Rotary.....	J. F. Chase.....	113, 141
Harrow, Rotary.....	R. Rakestraw.....	116, 991
Harrow, Rotary.....	C. Hood.....	121, 621
Harrow, seeder, and roller, Combined.....	J. Vessot, sr. and S. Vessot, jr.....	112, 369
Harrow, Sully.....	F. P. L. Reimers and H. Asbahr.....	117, 330
Harrow-teeth, Machine for rolling.....	S. C. Murdoch.....	121, 653
Harrow-teeth, Mode of fastening.....	G. Fry.....	112, 236
Harvester.....	W. A. and W. A. Wood and J. M. Rosebrooks.....	110, 713
Harvester.....	W. A. and W. A. Wood and J. M. Rosebrooks.....	110, 714
Harvester.....	W. A. and W. A. Wood and J. M. Rosebrooks.....	110, 715
Harvester.....	C. M. Young.....	110, 718
Harvester.....	W. R. Cory.....	110, 742
Harvester.....	T. J. Barnes.....	110, 949
Harvester.....	H. Stuckey.....	111, 272
Harvester.....	L. M. Batty.....	111, 424
Harvester.....	J. W. Schuckers.....	111, 482
Harvester.....	J. Moran and C. D. Wallace.....	111, 557
Harvester.....	W. F. Goodwin.....	111, 633
Harvester.....	G. H. Spaulding.....	111, 987
Harvester.....	I. A. Johnson.....	112, 147
Harvester.....	D. Mulock.....	112, 166

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of inventor.	No.
Harvester.....	J. S. Marsh.....	112, 263
Harvester.....	J. W. Schuckers.....	112, 288
Harvester.....	J. P. Manny.....	112, 361
Harvester.....	J. P. Manny.....	112, 362
Harvester.....	L. M. Batty.....	112, 530
Harvester.....	A. H. Wagner.....	112, 750
Harvester.....	J. P. Manny.....	112, 940
Harvester.....	J. H. Beam.....	113, 134
Harvester.....	J. Van de Water.....	113, 225
Harvester.....	C. Wheeler, jr., and C. Young.....	113, 475
Harvester.....	J. H. Elwood.....	113, 990
Harvester.....	B. G. Turner.....	114, 493
Harvester.....	J. Barnes.....	114, 747
Harvester.....	J. Souder and E. Miller.....	115, 376
Harvester.....	J. Farrington.....	116, 037
Harvester.....	S. Johnston and C. H. Jenner.....	116, 063
Harvester.....	W. D. Harman.....	116, 588
Harvester.....	D. A. Kellogg.....	116, 601
Harvester.....	S. and I. Rawson.....	117, 460
Harvester.....	C. Clapp.....	117, 514
Harvester.....	W. N. Johnson.....	117, 639
Harvester.....	J. F. Sieberling.....	117, 692
Harvester.....	J. A. Cauldwell.....	117, 862
Harvester.....	W. N. Whiteley.....	118, 315
Harvester.....	W. F. Goodwin.....	118, 526
Harvester.....	J. H. Adamson.....	118, 574
Harvester.....	O. Billings.....	118, 837
Harvester.....	W. N. Whiteley.....	118, 995
Harvester.....	C. J. Petersen.....	119, 172
Harvester.....	L. J. McCormick and W. R. Baker.....	119, 712
Harvester.....	L. J. McCormick and W. R. Baker.....	119, 937
Harvester.....	H. H. Bridenthall.....	120, 027
Harvester.....	J. D. Wilber.....	120, 407
Harvester.....	G. S. Grier.....	120, 431
Harvester.....	A. Rank.....	120, 669
Harvester.....	J. S. Truxell.....	120, 911
Harvester.....	E. B. Rice.....	121, 005
Harvester.....	P. Nicola.....	121, 061
Harvester.....	H. L. Hopkins.....	121, 784
Harvester.....	J. L. Rolier and C. E. Roper.....	122, 062
Harvester.....	J. B. Thomson.....	122, 201
Harvester and binder, Combined.....	J. McKesson.....	112, 267
Harvester and husker, corn, Combined.....	L. Devore.....	118, 217
Harvester and shocker, Corn.....	E. Culp.....	120, 249
Harvester-binder.....	J. Barta.....	114, 749
Harvester, Clover.....	J. W. Hull and A. G. Stiffler.....	111, 544
Harvester, Clover.....	J. Lamburn.....	119, 369
Harvester, Corn.....	C. S. Stull.....	112, 191
Harvester, Corn.....	A. N. Woodard.....	114, 076
Harvester, Corn.....	R. L. Nelson.....	114, 182
Harvester, Corn.....	D. C. Flint.....	115, 046
Harvester, Corn.....	R. L. Nelson.....	115, 978
Harvester, Corn.....	J. I. Mettler.....	116, 735
Harvester, Corn.....	J. Crossland.....	117, 264
Harvester, Corn.....	T. E. Curtiss.....	118, 207
Harvester, Corn.....	M. Thorp.....	118, 984
Harvester, Corn.....	A. F. Roberts.....	119, 181
Harvester, Corn.....	J. H. Whitney.....	120, 688
Harvester, Corn.....	J. Johnson.....	122, 176
Harvester-cutter cylinder.....	E. R. McCall.....	120, 205
Harvester-cutter grinder.....	J. P. Barker.....	119, 108
Harvester-cutters, Hand-grinder for.....	H. C. Fisk.....	120, 258
Harvester-dropper.....	I. Hedges.....	115, 199
Harvester-dropper.....	J. N. and T. Wallis.....	116, 120
Harvester-dropper.....	J. J. and D. N. Barnhill.....	117, 726
Harvester-dropper.....	O. M. Harrison.....	118, 236
Harvester-dropper.....	C. Bickell and J. F. Leibold.....	118, 331
Harvester, Flax.....	S. W. Tyler.....	115, 910
Harvester-gearing.....	J. P. Manny.....	121, 881
Harvester-knives, Apparatus for sharpening.....	I. C. Saunder.....	122, 064
Harvester-pitman.....	G. W. Harrison.....	119, 356
Harvester-platform.....	G. E. Deardorff.....	117, 055
Harvester-reel.....	J. Miller.....	117, 911
Harvester-reel.....	G. S. Grier.....	122, 007
Harvester, Reel for.....	D. C. Nutting and J. D. Allen.....	118, 045
Harvesting-machines, Manufacture of guards for.....	J. E. Sweet.....	121, 261
Harvesters, Adjustable reel and cut-off for.....	J. H. Keller and D. F. Luse.....	121, 107
Harvesters, Attachment to the cutting-apparatus of.....	A. Anderson and L. Johnson.....	115, 411
Harvesters, Binders' platform for.....	C. Miller.....	116, 471
Harvesters, Binders' table for.....	P. M. Donohoo.....	121, 090
Harvesters, Binding-attachment for.....	A. Freed and J. Snook.....	110, 841

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of inventor.	No.
Harvesters, Clutch for	F. Bramer	118, 333
Harvesters, Combined rake and reel for	J. B. Whiting	115, 004
Harvesters, Cutting-apparatus for	G. W. Cook and F. M. Duncan	112, 689
Harvesters, Cutting-apparatus for	P. Gregg	114, 003
Harvesters, Cutting-apparatus for	W. G. Kenyon	117, 178
Harvesters, Cutting-apparatus for	M. Harrison	119, 029
Harvesters, Cutting-apparatus for	J. T. Polson	119, 640
Harvesters, Finger-beam for	A. Rank	112, 629
Harvesters, Gaveling-fork for	O. Webster	120, 602
Harvesters, Guard-finger for	G. Fyfe and C. Hard	112, 440
Harvesters, Guiding-wheel for	W. A. and W. A. Wood	110, 712
Harvesters, Manufacture of cutter-bar heads for	A. Padgham	116, 088
Harvesters, Pitman-connection for	S. J. Green	117, 409
Harvester, Tongue for	M. Rohrer	114, 203
Harvester, Track-clearer for	C. N. Owen	121, 123
Hasp-lock	G. Crompton	120, 247
Hasp-lock	W. D. Heister	122, 013
Hasp or latch, Safety	C. E. Robinson	112, 635
Hat	J. Keith	110, 921
Hat	J. W. Corey	111, 178
Hat	W. H. White	112, 661
Hat	C. A. Hopkins, C. H. Reid, G. N. Raymond, and J. S. Meeker	116, 710
Hat	A. Bogardus	119, 073
Hat and cap holder	C. Beeny	112, 767
Hat-blocking machine	C. H. Berry	120, 699
Hat-blocking machines, Adjustable banding-ring for	G. Hayden	120, 740
Hat-blocking machines, Adjustable crown-block for	W. C. Griswold	120, 739
Hat-bodies, Alarm attachment for machines for forming	W. C. Waring	110, 700
Hat-bodies, Implement for alluring	J. Northrop and J. F. Eunmons	114, 327
Hat-bodies, Machine for felting	J. Vero	112, 197
Hat-bodies, Machine for shrinking	P. V. W. Bishop	120, 617
Hatchet, Pruning	J. White	111, 024
Hatchways, Safety-device for	A. Fries	111, 628
Hat-linings and tips, Ornamenting	T. W. Bracher	115, 689
Hat-linings, Embossing	T. W. Bracher	116, 891
Hat-machine	C. M. Osgood	111, 079
Hat or bonnet	D. Scrymgeour	121, 668
Hat-rack, Folding	N. Hayden	122, 168
Hats, bonnets, &c., Flocked fabric for	C. L. Mitchell	120, 684
Hat-sizing machine	J. H. Hopkins	111, 935
Hats, Machine for forming	D. Dennis	118, 914
Hats, Machine for pouncing	A. Pelisse and G. W. Stoute	113, 446
Hats, Machine for stretching the brims of	J. Sheldon	115, 114
Hats or caps, Ventilator for	W. Dale	121, 995
Hat-supportor and ventilator combined	J. A. Borthwick	111, 309
Hats, Ventilator for	H. A. House	113, 054
Hat-sweat from water-proof paper	W. M. Waterbury	121, 820
Hat-tips to linings, Machine for sewing	J. L. Coles	117, 867
Hat-ventilator	A. Solomans	113, 941
Hat-ventilator	E. G. Nichols	120, 163
Hay and manure fork, Combined	F. Villard	118, 410
Hay, Apparatus for elevating	J. Bolles	120, 365
Hay, Apparatus for unloading	E. Harrison	118, 531
Hay, Apparatus for unloading and moving	A. Smith	115, 120
Hay, &c., Device for elevating	F. Calvert	118, 791
Hay, Carrier for unloading	G. Smith	116, 230
Hay-elevator	T. V. Bayly	113, 837
Hay-elevator and carrier	W. T. Neil	116, 622
Hay-fork, Horse	B. F. Brown	112, 777
Hay-fork, Horse	C. Bean	114, 391
Hay-fork, Horse	C. Yengst	116, 000
Hay-fork, Horse	J. Huy	117, 541
Hay-fork, Horse	J. H. Carothers	119, 120
Hay-fork, Horse	J. C. Lampman	119, 619
Hay-fork, Horse	P. J. Morse and J. Knhn	120, 160
Hay-fork, Horse	C. A. Howard	129, 440
Hay-gatherer	A. Streen	115, 783
Hay-loader	J. P. Rideout	111, 252
Hay-loader	J. E. Felland J. H. Mattocks	111, 735
Hay-loader	L. D. Taylor	113, 363
Hay-loader	H. Baker	117, 033
Hay-loader	H. W. Hamilton	121, 777
Hay, Pressing and baling	G. H. Aylworth	112, 766
Hay-rack, Hinged	M. Carpenter	116, 153
Hay-rake and loader, Combined	A. J. Preston	117, 204
Hay-rake and tedder, Combined	C. La Dow	113, 066
Hay-rake and tedder, Combined	F. A. Thayer	114, 065
Hay-rake, Horse	C. R. Merriam	110, 771
Hay-rake, Horse	J. C. Stoddard	110, 876
Hay-rake, Horse	S. Rockafellow	111, 150

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of inventor.	No.
Hay-rake, Horse	O. Bonney, jr	111, 308
Hay-rake, Horse	I. N. Condra	111, 320
Hay-rake, Horse	J. Howard and E. T. Bousfield	112, 461
Hay-rake, Horse	S. P. Smith	112, 507
Hay-rake, Horse	J. H. Schoonmaker	112, 854
Hay-rake, Horse	J. F. Henkle	113, 165
Hay-rake, Horse	W. A. Myers	113, 552
Hay-rake, Horse	O. O. Storle	113, 813
Hay-rake, Horse	W. H. Locke	113, 899
Hay-rake, Horse	O. S. Jarvis	114, 150
Hay-rake, Horse	R. M. Treat	114, 368
Hay-rake, Horse	G. Notman	114, 591
Hay-rake, Horse	J. G. Lockwood	115, 071
Hay-rake, Horse	M. W. Trescott	115, 909
Hay-rake, Horse	F. Andrews	116, 254
Hay-rake, Horse	M. S. Holman and C. S. Farrar	118, 130
Hay-rake, Horse	C. Kugler	118, 726
Hay-rake, Horse	A. L. Chubb	119, 320
Hay-rake, Horse	P. Pfeifer	119, 532
Hay-rake, Horse	G. Sweet	119, 669
Hay-rake, Horse	M. C. Remington	119, 721
Hay-rake, Horse	J. E. Wisner	121, 035
Hay-rake, Horse	L. A. Crocket	121, 159
Hay-rake, Horse	J. G. Lockwood	122, 039
Hay-rake, Horse	J. Comly	122, 109
Hay-rake, Horse	S. Rockafellow	122, 282
Hay-tedder	A. Brown	110, 893
Hay-tedder	W. H. Butterworth	111, 041
Hay-tedder	E. W. Bullard	111, 314
Hay-tedder	L. Hale	112, 030
Hay-tedder	W. G. Kenyon	112, 602
Hay-tedder	H. M. Burdick	113, 848
Hay-tedder	H. M. Burdick	113, 849
Hay-tedder	J. G. Perry	117, 561
Hay-tedder	J. G. Perry	117, 562
Hay-tedder	W. H. Mickle	118, 810
Hay-tedder	J. K. Collins	120, 626
Hay-tedder	J. G. Perry	121, 958
Head-block	H. M. Popple	115, 237
Head-block	H. R. Martin	115, 492
Head-block	T. Douglass	121, 934
Head-block	N. F. Beckwith	122, 215
Head-block	J. M. Comins	122, 228
Head-block for carriages	D. Hinman	114, 681
Head block for saw-mills	W. A. L. Kirk	112, 257
Head-block for saw-mills	J. S. Everitt and C. H. Avery	112, 572
Head-block for saw-mills	W. A. Greenleaf	118, 801
Head-block for saw-mills	W. S. Jenks	120, 749
Head-block for saw-mills	D. Lane	122, 263
Head-block, Saw-mill	S. M. Harris	120, 514
Head-dress, Infants'	L. E. Love	121, 391
Head for rectangular can	E. T. Covell	121, 490
Head-rest	T. D. Thompson	120, 128
Head-rest for car-seats	J. C. Gifting	122, 165
Head-rest for coffins	J. P. Waugh	118, 565
Heads for picture-nails, Mechanism for manufacturing	L. Wolf	112, 880
Heads of oil-tanks, Machine for turning the flanges on the	G. Selden	116, 636
Head-stock for milling-machines	A. H. Brainard	111, 311
Healing-plasters, Composition for	D. G. Williams	116, 906
Heater and condenser, Combined	B. Holly	114, 142
Heater and stand for table purposes, Combined	E. A. Beardsley	120, 233
Heater, Base-burning fire-place	E. S. Heath	110, 654
Heater, Base-burning fire-place	P. Klotz	111, 753
Heater, Base-burning fire-place	J. H. Burtis	116, 680
Heater, Base-burning fire-place	W. E. Wood	117, 585
Heater, Base-burning fire-place	W. L. McDowell	121, 185
Heater, Feed-water	T. D. Simpson	113, 355
Heater, Feed-water	C. S. S. Gifting	114, 132
Heater, Feed-water	W. E. Walsh	122, 204
Heater for oil-wells, Topical	E. Newberry	118, 384
Heater for paper-ruling machines	L. Seibert and J. W. Lilley	111, 390
Heater for steam-boilers, Feed-water	R. Berryman	115, 682
Heater for stoves, Water	G. Hibberd	120, 518
Heater, Gas	O. McK. Reynolds and D. T. Kitchell	113, 567
Heater, Gas	H. F. W. Wesche	115, 666
Heater, Gas	J. P. Hays	119, 761
Heater, Gas	D. G. Haskins	121, 170
Heater, Hollow-grate feed-water	G. W. Jones	117, 176
Heater, Hot-water	W. H. Lungren	116, 603
Heater, Hot-water	N. Middleton and S. Morris	118, 620

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Heater, Railroad	A. M. Rodgers	113, 348
Heater, Railroad-car	H. R. Bobbins	114, 349
Heater, Railroad-car	J. Shackleton	115, 533
Heater, Railroad-car	J. G. Allen	116, 914
Heater, Railroad-car	B. D. Thompson	119, 249
Heater, Sad-iron	L. Wilkinson	110, 708
Heater, Sad-iron	G. Bennis	112, 208
Heater, Sad-iron	M. Little	118, 375
Heater, Sad-iron	B. T. Babbitt	120, 480
Heater, Sleigh	A. Norton	114, 466
Heater, Steam	J. L. Winslow	111, 598
Heater, Steam	W. Thomson	112, 195
Heater, Steam	C. J. Wood	112, 881
Heater, Steam	A. L. Ide	114, 440
Heater, Steam	C. W. Trotter	115, 392
Heater, Steam	N. Bowen	115, 423
Heater, Steam	A. L. Ide	115, 477
Heater, Steam	F. H. Pulsifer and W. C. Wheeler	117, 111
Heater, Steam	D. Vaughan	117, 127
Heater, Steam	J. McConn	117, 310
Heater, Steam	J. L. Peake	117, 675
Heater, Steam	E. Caulfield	118, 432
Heater, Steam	A. G. Bearup and P. Carraher, jr.	118, 779
Heater, Steam	G. F. Burkhardt	119, 816
Heater, Steam	E. C. Clay	120, 184
Heater, Steam	B. T. Babbitt	120, 479
Heater, Steam-boiler feed-water	B. Garvin	120, 959
Heater, Water	D. Smith and J. Lynch	115, 901
Heater, Water	J. Head	117, 416
Heater, water, Steam	J. Argall	116, 792
Heating and illuminating, Apparatus for the manufacture of gas for	J. H. Connelly and J. McLure	115, 028
Heating and lighting locomotives and railroad-cars by gas, Apparatus for	J. H. Connelly	115, 027
Heating-apparatus	M. G. Fagan	112, 233
Heating-apparatus, Hot-water	A. C. Pentland	114, 595
Heating-apparatus, Portable	W. Shaw	120, 905
Heating feed-water for steam-boilers	W. A. Lighthall	116, 727
Heating propagating-beds, Apparatus for	W. Chambers	112, 220
Heating the converters and other vessels used in the Bessemer process of treating iron, Apparatus for	C. G. Larson	116, 201
Heating water, Dairy-heater for	G. W. McCammon and D. H. Burrell	114, 836
Hedge-trimmer	G. and S. P. Clark	112, 221
Hedge-trimmer	J. M. and O. Vannosdall	112, 300
Heel-burnishing machine	R. C. Lambert	117, 955
Heel, Metallic	A. S. Mann	110, 768
Heel, Metallic	A. S. Mann	116, 973
Heel, Metallic	E. P. Bray	118, 335
Heel-rands, Machine for forming	S. Holmes and J. F. Sargent	113, 432
Heel-trimming machine	J. Q. Moulton	113, 684
Hemlock-bark, Medical extract from	S. H. Kennedy	121, 631
Hemp-drawing machine	G. W. Pittman	121, 414
Hemp, flax, &c., Machine for breaking and cleaning	T. Tebow	115, 387
Hemp-hatcheling machine	G. W. Pittman	116, 092
Hides, leather, &c., Machine for softening	L. H. Stanley and G. B. Draper	115, 131
Hides, Machine for dressing	E. Fitzhenry	118, 002
Hides, Process and apparatus for curing	A. Rock	112, 285
Hides, Process of treating and preserving	A. Rock	118, 746
Hides, Tanning	H. P. Wilson	120, 606
Hide-working machine	M. B. Gould	110, 847
High-wines, Rectifying	A. K. Lee	112, 818
Hinge	M. R. Lemman	112, 934
Hinge	S. H. Wheeler	113, 378
Hinge	E. D. Norton	115, 509
Hinge	S. W. Barber	118, 577
Hinge	A. A. Oat	119, 944
Hinge	I. Buckman	120, 032
Hinge	R. B. Fouzer	120, 580
Hinge	J. Miller	120, 762
Hinge	W. T. Wells	122, 088
Hinge, Butt	J. W. Carleton	112, 417
Hinge, Double	J. S. Jenness	110, 659
Hinge for carriage-doors	G. W. Beers	112, 313
Hinge for gate	G. Garrett	113, 998
Hinge for gates	C. B. Clark	111, 515
Hinge for gates	E. D. Norton	113, 788
Hinge for gates	A. D. McMaster	116, 851
Hinge for gates, &c	P. P. Child	120, 492
Hinge for seats	W. A. Slaymaker	121, 259
Hinge for table-leaves, &c	P. Hires	114, 009
Hinge, Reversible	F. W. Marston	114, 579

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Hinge, Reversible	P. P. Child	119, 319
Hinges, Machine for manufacturing	W. F. Lewis	110, 983
Hinge, Spring	N. Sehner	114, 719
Hinge, Spring	D. B. Hawkes	114, 813
Hinge, Spring	N. Sehner	117, 691
Hobby-horse, Children's	W. L. Williams	110, 709
Hods, Apparatus for elevating	G. W. Brown	119, 305
Hoe	I. Cook and J. T. Bever	114, 266
Hoe	J. Stilwell	115, 132
Hoe	A. Ellis	120, 050
Hoe and cultivator, Horse	G. D. Rowell	113, 934
Hoe-blanks, Machine for rolling	H. Waters	114, 498
Hoe, Corn-stubble	G. H. Wright and A. K. Johnson	120, 143
Hoe, Cotton	J. S. Carroll	115, 568
Hoe, Cotton	Z. B. Sims	119, 418
Hoe, Garden	J. P. Avery	112, 527
Hoe, Garden	C. R. Gilbert	118, 360
Hoe, Garden	T. V. Kimbell	119, 986
Hoe, Garden	F. Trigalet	121, 621
Hoes, corn, Dropping-attachment for	E. L. Staples	111, 883
Hoes, planters', Roll for the manufacture of	J. T. Tyler	112, 867
Hoe, Weeding	E. Wilcox	120, 408
Hog-cholera, Medical compound for the cure of	C. L. Jones	121, 523
Hog-lifting machine	J. Dagley	120, 946
Hog-ringing device	W. S. Houston	120, 876
Hogs from rooting, Device to prevent	D. P. Hefebower	117, 883
Hogs, Machine for ringing	J. and G. Heeson and H. Nyland	116, 440
Hog-snouter	J. C. Campbell and W. S. Bruce	110, 629
Hog-stock	W. C. Hays and J. D. Scott	116, 183
Hoisting and lowering apparatus	R. L. Fitch	115, 292
Hoisting-apparatus	C. R. and N. P. Otis	110, 993
Hoisting-apparatus	H. Flad and J. B. Eads	111, 188
Hoisting-apparatus	A. B. Lipsey	111, 356
Hoisting-apparatus	L. W. Stuart	113, 362
Hoisting-apparatus	C. R. and N. P. Otis	113, 555
Hoisting-apparatus	T. Silver	113, 585
Hoisting-apparatus	J. R. Benedict	115, 810
Hoisting-apparatus	G. Sprague	116, 769
Hoisting-apparatus	T. R. Vestal	117, 224
Hoisting-apparatus	J. Hoffmann	117, 778
Hoisting-apparatus	A. Weide	117, 840
Hoisting-apparatus	J. Wheelock	117, 948
Hoisting-apparatus	E. R. Gard	118, 447
Hoisting-apparatus	T. Krausch	121, 386
Hoisting-apparatus	J. Nicholson	121, 463
Hoisting-apparatus	T. Terrell	121, 910
Hoisting-apparatus, Animal	J. Newton	111, 671
Hoisting-apparatus, Hydraulic	A. Lucius	118, 031
Hoisting-cages, Safety-attachment for	W. C. Williamson	116, 656
Hoisting-machine	J. Scott	112, 855
Hoisting-machine	W. Sellers	112, 856
Hoisting-machine	J. Bates	113, 836
Hoisting-machine	H. J. Reedy	116, 096
Hoisting-machine	W. M. Lloyd	116, 607
Hoisting-machine	D. A. Bolt	117, 971
Hoisting-machine	G. R. Long and S. King	119, 988
Hoisting-machine	S. L. Lord	121, 113
Hoisting-machine, Pneumatic	J. R. Anderson and T. C. Harlan	116, 916
Hoisting-machines, Safety-apparatus for	W. T. Sands	116, 103
Hoist, Vertical	W. E. Worthen	120, 844
Hold-back for shafts of vehicles	J. Armstrong	120, 477
Hold-back for vehicles	N. W. Simons	113, 354
Holder for drinking-glasses	J. V. Snider	112, 974
Holder for plates while being warmed	W. T. Stoutenbrough	111, 399
Holder for screw-cutting dies	B. L. Walker	120, 351
Holder for spinning-rings	T. Marsh	118, 544
Holder for stereoscopic pictures	J. L. Dibble	120, 724
Holder for wax candles or tapers	J. Fritsch	117, 763
Hollow metallic axles and other hollow metallic articles, Process of making	W. A. Lewis	119, 864
Hollow-tile floor	G. H. Johnson and B. Kreischer	112, 926
Hollow-tile wall	G. H. Johnson	112, 925
Hollow-vessels, Construction of	W. F. Holske	115, 056
Hollow-ware, Apparatus for pressing	N. Thompson	119, 725
Hoof-parer	I. Baker	119, 734
Hook, Back-band	H. Beagle	119, 556
Hook, Bale	R. T. Yardley	119, 213
Hook, Bench	H. M. Putnam	116, 220
Hook, Bird-cage	J. Bradbury	120, 569
Hook, Cant	A. Kennard	111, 460
Hook, Cant	A. B. Reeves	113, 796

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Hook, Check-rein	A. Ladd	113, 065
Hook, Chain	J. R. Thorne	116, 511
Hook, Clothes and hat	R. W. Randall	111, 777
Hook, Clothes-wringer	J. H. Pratt	112, 074
Hook, Fish	L. Arnold	111, 898
Hook for bird-cages	J. M. Spring	113, 808
Hook for hats, coats, &c	A. J. Goodrich	120, 156
Hook, Grappling	E. Ziegler and C. Cable	113, 126
Hook, Joist	J. S. Miller	117, 793
Hook, Ladder	S. D. Fish	119, 226
Hook, Match	J. D. Leach	114, 451
Hook, Rafter	J. N. Bebout	117, 729
Hooks and eyes, Machine for making	J. T. Ford	112, 331
Hooks, blind-hinge, Machine for making	G. Orr	119, 945
Hook, Snap	O. O. Storle	114, 457
Hook, Snap	J. Robbins	115, 897
Hook, Snap	W. L. Heberling	118, 611
Hook, Snap	E. M. Kinne	120, 386
Hook, Snap	L. Morse	122, 127
Hook, Swivel	C. E. Richards	116, 870
Hook, Tackle	J. W. Norcross	113, 689
Hook, Tackle	W. Newcomb	116, 212
Hook, Wardrobe or hat	C. R. Scott	113, 209
Hook, Whiffletree	A. Verbeck	112, 096
Hook, Whiffletree	A. J. Griggs	115, 307
Hoop, bar and rod-iron, Roll for rolling	J. Tranter and J. Kinsey	113, 708
Hoop, Metal	S. Lewis	118, 252
Hoop, Metallic	E. C. Hamlin	119, 844
Hoop-skirt	M. P. Bray	112, 681
Hoop-skirts	J. O. West	111, 998
Hops, Extract of	C. A. Seeley	118, 396
Hops, Preserving and using in brewing	J. Seeger and J. Boyd	121, 902
Horn, pulverized, Manufacture of articles from	W. F. Niles and S. G. Pitts	116, 213
Horse and cattle powder	A. Rudisill and M. Sell	111, 576
Horse-cars, Pole-adjuster for	A. G. Safford	114, 205
Horse-car starter	H. Schreiner	112, 640
Horse-collar	L. Guinnip	113, 161
Horse-collar and hame	O. Cann	113, 253
Horse-collar and hame	A. Dunbar	119, 585
Horse-collar fastening	C. Wheeler	120, 356
Horse-collars, Machine for pressing and stuffing	W. Guilfoyle	115, 727
Horse-collars, Manufacture of japanned or enameled	J. and H. Duxton	121, 559
Horse-cover, Ventilated	S. Sibley	117, 118
Horse-detaching apparatus	J. L. Hamilton	114, 553
Horse-holder for sleighs	H. A. Sprague	119, 062
Horse-nail machine	E. W. Kelley	119, 854
Horse-power	W. F. Goodwin	111, 634
Horse-power	D. L. Lamont	111, 949
Horse-power	J. W. Huntton	112, 251
Horse-power	T. D. Pennington	113, 088
Horse-power	T. A. E. Evans	113, 410
Horse-power	W. W. Dingee	113, 750
Horse-power	D. G. Marden	114, 168
Horse-power	H. Glass	114, 549
Horse-power	T. Harrison and W. C. Buchanan	114, 555
Horse-power	H. B. Stevens	114, 574
Horse-power	D. L. Craig	115, 711
Horse-power	F. M. C. Liles	116, 843
Horse-power, (see Power, Horse)	J. F. Collins	117, 516
Horse-power fastening	H. B. Hossler	121, 784
Horse-power, Platform	J. Culver	111, 326
Horse-powers, Device for securing	F. W. Randall	114, 553
Horse-powers, Mode of fastening	H. C. Drew	121, 281
Horse-powers, Staking	W. Gregg	118, 232
Horse-rake teeth	J. B. L. Bartlett	117, 243
Horse-rake teeth, Machine for bending and hardening	G. F. Simonds	115, 775
Horses, &c., Medicine or powder for	J. Norcross	113, 198
Horses, Apparatus for grooming	J. J. Greenough	118, 449
Horses, Apparatus for releasing	J. Harrison	120, 272
Horses, Feed-bag for	W. A. Hough	112, 458
Horses from vehicles, Device for detaching	G. B. Lumpkin	117, 306
Horseshoe	J. Brackett	112, 773
Horseshoe	R. Seiffert	119, 415
Horseshoe	D. Grim	120, 813
Horseshoe-calk	J. L. Vervesp	118, 470
Horseshoe-calks, Machine for sharpening	H. Howell	113, 670
Horseshoe calks, Swage for	E. D. Withers	113, 405
Horseshoeing-rest	G. Stansel	120, 119
Horseshoe-machine	U. Billings	112, 769
Horseshoe-machine	W. R. Justus	113, 173
Horseshoe-machine	D. I. Pruner	115, 120

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Horseshoe-nail clincher	D. Mater, jr.	117, 793
Horseshoe-nail machine	H. D. Cowles and G. Stacy	114, 413
Horseshoe-nails, Apparatus for pointing	C. H. Perkins	119, 402
Horseshoe-nails, Device for pointing	C. H. Perkins	117, 560
Horseshoe-nails, Machine for cutting off	C. F. Johnson, jr	115, 480
Horseshoe-nails, Machine for making	E. W. Kelley	115, 064
Horseshoe-nails, Machine for manufacturing	G. L. Hall	121, 511
Horseshoe-nails, Machine for pointing	A. H. Caryl	114, 920
Horseshoe-nails, Machine for pointing	H. A. Wills	117, 584
Horseshoes, Machine for making	J. H. Snyder	118, 399
Horseshoes, Machine for making	W. Roberts	119, 051
Horseshoes, Machine for bending and channeling	A. Oehme	120, 087
Horseshoes, Machine for punching holes in and bending the calks on	A. Oehme	120, 088
Horseshoes, Rubber pad for	D. L. Corbin	110, 828
Horses, Interfering-pad for	W. H. Hall	111, 740
Horses, Mode of harnessing, to shafts of vehicles	R. McHardy	119, 526
Horses, Shaving	F. J. Eldred	109, 512
Horses, Stocking for	W. Lewis	121, 880
Horses, Sun-shield for	H. D. McGovern	120, 208
Horse-stall	J. Wilkinson	114, 241
Horses, Throat-check for	S. French	122, 114
Hose, &c., Machine for repairing	A. Shedlock	113, 213
Hose-carriage	A. A. Justin	118, 615
Hose-clasp	T. J. Pettit	117, 563
Hose-leak stopper	W. C. Davol, jr	115, 715
Hose, Rubber plug-pipe for	E. L. Perry	114, 337
Hose-tunnel for city railways	L. Myers	112, 731
Hot-air distributing-pipe	H. C. Crehore	111, 433
Hotel annunciator and fire-alarm	E. A. Hill	114, 007
Hound, sway-bar, tongue-brace, and cross-bar of vehicles.	G. Doan, T. Wallis, and G. D. Moreland	111, 046
House-bell	A. L. Swan	122, 200
House for the management of bees	M. A. Glass	116, 700
Household implement	T. Garrick	114, 665
Housing for rolls	J. Rigby	114, 858
Hub and axle	C. R. Donner	111, 822
Hub and spoke	W. Beauchamp	119, 557
Hub-bands, &c., Mode of fastening	J. Ives	111, 547
Hub, Carriage	H. W. Stow	114, 364
Hub, Carriage	W. T. Dole	121, 857
Hub, Carriage-wheel	H. E. Vick	121, 694
Hub-centering machine and spoke-guide	K. P. Allen	116, 790
Hub for carriage-wheels	J. Y. Burwell	120, 150
Hub for carriage-wheels	E. A. Archibald	120, 845
Hub for carriage-wheels	H. E. Vick	121, 025
Hub for vehicles	W. I. Lyman	111, 070
Hub for vehicles' wheels	O. Vanorman	119, 803
Hub for wagon-wheels	S. Atha	119, 295
Hub for wheels	J. L. Van Wert	111, 703
Hub for wheels	W. C. Johnson	113, 171
Hub for wheels of vehicles	E. D. Ives	118, 369
Hub, Metallic	J. H. Harper	112, 452
Hub-mortising machine	P. Snyder	120, 117
Hubs, Device for securing the boxings in	M. Turly	118, 406
Hubs, Machine for turning	W. G. Beach	120, 931
Hubs, Mode of attaching caps to	P. Heoter and R. Victor	115, 316
Hubs of vehicles, Sand cap for	G. H. Nevens	114, 324
Hub, Wagon	J. H. Gaines	117, 878
Hub, Wheel	J. V. Woolsey	117, 849
Hulling machines, Feed-device for	D. Kahnweiler	122, 028
Husk-splitter	B. Hollis	122, 017
Hydrant	J. McCann	112, 825
Hydrant	J. Fernan	113, 507
Hydrant	J. P. Gallagher	114, 283
Hydrant	J. Walsh	114, 996
Hydrant	J. L. Pillsbury	115, 637
Hydrant	N. Schleffer	118, 059
Hydrant	W. H. Duffett	118, 116
Hydrant	J. Small	121, 429
Hydrant	P. H. Griffin	121, 716
Hydrant	J. Fricker	121, 771
Hydrant, Non-freezing	H. Merrie	115, 882
Hydraulic apparatus	G. H. Herring	111, 536
Hydraulic apparatus	P. F. Powers	114, 339
Hydraulic disk	T. Shaw	115, 365
Hydrocarbon-gas apparatus	M. H. Story and W. I. Reid	112, 981
Hydrocarbon gases, Apparatus for the manufacture of	J. Kidd	118, 459
Hydrocarbon oil, Distilling	S. A. Hill and C. F. Thumm	114, 293
Hydrocarbon oils, Apparatus for burning	J. R. Lee	112, 358
Hydrocarbon oils, Process and apparatus for treating	J. J. Johnson	117, 426

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Hydrocarbon oils, Process for deodorizing.....	R. Gaggin.....	118, 359
Hydrocarbons, Apparatus for distilling.....	J. J. Johnson.....	117, 425
Hydrocarbons, Apparatus for vaporizing.....	J. K. Caldwell.....	118, 903
Hydrocarbons, solid and liquid, Treating.....	F. Lambe.....	115, 871
Hydrocarbons, volatile, Apparatus for vaporizing.....	J. Butler.....	113, 978
Hydrocarbon vapors, Apparatus for generating.....	W. Roberts.....	114, 603
Hydrogen-gas, Apparatus for carbureting.....	J. Ambuhl.....	114, 744
Hydrogen-gas, Apparatus for carbureting.....	C. B. Loveless.....	115, 873
I.		
Ice, Apparatus for making.....	C. P. Leavitt.....	117, 037
Ice, Apparatus for making.....	E. C. Weld.....	118, 411
Ice, Apparatus for manufacture of.....	J. E. Sears.....	118, 649
Ice, Apparatus for the manufacture of.....	A. Mühl.....	121, 402
Ice-bag.....	S. Stroock.....	117, 013
Ice, Cooling air in the manufacture of.....	O. Lugo and J. B. McPherson.....	112, 726
Ice-cream freezer.....	J. F. Rote.....	113, 450
Ice-cream freezer.....	M. Rosenstein.....	115, 361
Ice-cream freezer.....	J. Tingley.....	115, 657
Ice-cream freezer.....	C. Gooch.....	116, 584
Ice-cream freezer.....	A. L. Platt and I. W. Wilmeth.....	118, 149
Ice-creams, water-ices, &c., Manner of packing and conveying.....	I. Allegretti.....	113, 239
Ice-creeper.....	M. Warne.....	114, 998
Ice-creeper.....	E. S. Ellis.....	116, 575
Ice-creeper.....	E. M. Turner.....	117, 945
Ice-crusher.....	O. B. Kinsey.....	111, 652
Ice-cutting.....	L. Barnum.....	112, 408
Ice-house.....	C. Liebmann.....	120, 754
Ice-house for packing and curing meats.....	H. A. Roberts.....	118, 277
Ice-machine.....	D. K. Tuttle and O. Lugo.....	111, 280
Ice-machine.....	F. Windhausen.....	111, 293
Ice-machine.....	A. Rock.....	112, 284
Ice-machine.....	C. A. Seely.....	119, 795
Ice, Machine for shaving.....	W. H. Collins.....	119, 324
Ice-machine, (using ammonia).....	A. C. Twining.....	121, 975
Ice-machine.....	A. Mühl.....	121, 838
Ice-machine carré.....	A. Vaas and F. Littmann.....	114, 495
Ice, Manufacture of.....	T. J. Bigger.....	112, 499
Ice, Manufacture of.....	A. Albertson.....	115, 409
Ice-pick.....	W. T. Eames.....	117, 754
Ice-pick.....	T. A. Taylor.....	118, 070
Ice-pick and hook.....	E. H. Schmults and J. Baker.....	111, 260
Ice-pitcher.....	F. Miller.....	118, 630
Ice-pitcher.....	C. Englebert and J. S. Von Nieda.....	121, 500
Ice-preserver.....	J. Dunning.....	119, 016
Ice-run.....	G. Burhaus.....	116, 502
Ice-shaver, Rotary.....	C. C. Clawson.....	118, 639
Identifying-stamp.....	G. Pardy.....	119, 715
Illuminating-apparatus.....	G. Cuppers.....	121, 234
Illuminating-gas, Manufacture of.....	L. N. Stanley.....	111, 486
Illuminating-gas, Apparatus for the manufacture of.....	E. Jones.....	116, 450
Illuminating-gases, Method and apparatus for separating certain hydrocarbon vapors from.....	H. D. Edgerton.....	117, 998
Illuminator, Gas.....	M. Andrew.....	118, 669
Implement, Combined agricultural.....	C. R. Rand.....	111, 871
Implement for driving spokes into hubs or wheels.....	W. Edwards.....	112, 021
Implement for slitting and looping rags for carpets.....	D. A. Russell.....	111, 977
Implement, Garden.....	D. S. Wilhoit.....	118, 038
Implement, Household.....	R. A. McCauley.....	116, 849
Incubator.....	E. Woodward and N. J. Millett.....	121, 977
Incubator.....	H. J. Haight.....	122, 249
Incrustation in steam-boilers, Composition for removing.....	C. G. Dodge.....	119, 830
Index.....	O. F. Bullard.....	113, 015
Indian corn with malt extract, Treating.....	M. Cziener.....	120, 721
Indicating and registering the motion of marine engines, Device for.....	A. B. Harris.....	115, 846
Indicator, Electro-magnetic.....	W. D. Smith.....	111, 394
Indicator for steam-boilers, High and low water.....	F. Milward.....	115, 501
Indicator for steam-engines, Electro-magnetic.....	A. R. Harris.....	115, 847
Indicator, Low-water.....	H. Kimball.....	112, 256
Indicator, Low-water.....	W. A. Bradford.....	113, 843
Indicator, Office.....	L. Burger.....	116, 018
Indicator, Railroad-station.....	J. B. Alexander.....	112, 670
Indicator, Railroad-station.....	J. B. Alexander.....	112, 671
Indicator, Speed.....	H. Bilgram.....	118, 332
Indicator, Station.....	A. C. Rodgers.....	116, 223
Indicator, Station.....	F. F. Warner and J. W. Benham.....	121, 476
Indicator, Water.....	W. Butterfield.....	118, 759

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Indian corn with malt extract, Treating.....	M. Cziner.....	120, 721
Indigo, waste, Process of restoring.....	F. A. Sawyer, 2d.....	120, 215
Induction-coil.....	D. M. F. Cook.....	119, 825
Inhaler.....	R. B. Heintzelman.....	120, 816
Inhaler and vaporizer for administering anæsthetics.....	E. E. Duncanson.....	119, 748
Injector for steam-boilers.....	W. B. Mack.....	118, 734
Ink, copying, for ruling and printing.....	C. McIlvaine.....	117, 314
Ink for printing.....	J. Kircher.....	119, 154
Ink-fountain for printing-presses.....	W. V. Wallace.....	116, 773
Inking-apparatus for printing-presses.....	N. F. Turner.....	116, 892
Ink, Printers'.....	M. Turley.....	113, 947
Ink, Printers'.....	C. McIlvaine.....	117, 313
Inkstand.....	S. Darling.....	111, 435
Inkstand.....	S. C. Catlin.....	114, 262
Inkstand.....	T. Duncan.....	115, 041
Inkstand.....	J. A. Bowen.....	115, 686
Inkstand.....	W. O. Haskell.....	115, 733
Inkstand.....	S. D. Clark.....	117, 743
Ink, Writing.....	E. F. Walsh and S. Duryea.....	115, 915
Inlaying.....	J. W. Hyatt, jr.....	119, 710
Insects, Device for destroying.....	P. S. Van Wagner.....	119, 547
Insect destroyer.....	S. Creighton.....	118, 517
Insect destroyer.....	D. G. Mosher.....	119, 389
Insect destroyer.....	J. M. Bennett.....	121, 272
Insect-guard.....	J. W. Brook.....	117, 379
Instruments, Dental.....	C. H. Mack.....	117, 904
Instrument, Electro-magnetic.....	L. L. Duerden.....	117, 268
Instrument for extracting packings from stuffing-boxes.....	H. N. Smade.....	118, 823
Instrument for measuring powders.....	W. Thomson, jr.....	120, 404
Instrument for the relief of the piles.....	E. Dithridge.....	115, 285
Instrument, Musical.....	T. Atkins and H. Drewer.....	116, 793
Instrument, Musical.....	K. Smith.....	116, 879
Instrument, musical, Keyed.....	E. Hamlin.....	116, 834
Instrument, musical, Reed.....	J. Foster.....	118, 445
Instrument, Plotting.....	J. E. Crupper.....	116, 163
Instrument-stand, Dentists'.....	J. J. Ross.....	113, 571
Instruments, telegraph, Electro-magnet for.....	T. A. Edison.....	114, 658
Instrument, Telegraphic transmitting.....	T. A. Edison.....	114, 656
Instruments, telegraph, relay-magnet for.....	T. A. Edison.....	114, 637
Instrument, Surveying.....	R. F. George.....	116, 047
Instrument, Telegraph-recording.....	G. Little.....	120, 289
Insulator for telegraph-wires.....	Z. C. Robbins.....	112, 281
Insulator for telegraph-wires.....	H. Read.....	115, 521
Insulator, Telegraph.....	S. Chester.....	114, 924
Iron and other ores, Smelting.....	R. D. and W. F. Cox.....	113, 401
Iron and steel, Compound for hardening.....	J. McDonald.....	121, 645
Iron and steel, Flux for refining.....	E. T. Atwood.....	114, 090
Iron and steel, Flux for the manufacture of.....	L. Sibert.....	117, 693
Iron and steel, Furnace for the manufacture of.....	J. M. Roberts.....	121, 422
Iron and steel, Machinery and building for manufacture of.....	H. Bessemer.....	117, 968
Iron and steel, malleable, Manufacture of.....	J. C. Ridley.....	117, 684
Iron and steel, Manufacture of.....	J. W. Middleton.....	112, 828
Iron and steel, Manufacture of.....	Z. L. Durfee.....	114, 277
Iron and steel, Manufacture of, and furnaces for the same.....	T. C. Hind.....	121, 872
Iron and steel, Refining.....	A. H. Siegfried.....	113, 583
Iron and steel, Refining.....	W. H. Kimball.....	116, 065
Iron and steel with molten iron, Coating.....	R. B. Fowler and D. F. Brandon.....	113, 040
Iron, &c., Coating for.....	G. A. Mariner and F. Dorsett.....	118, 032
Iron, &c., Welding-powder for.....	G. E. Rose.....	113, 933
Iron chips, shavings, &c., Preparing for melting.....	A. C. Haserick.....	121, 245
Iron, Composition for treating.....	S. Weaver.....	113, 228
Iron, Compound for coating.....	J. A. Sewall.....	118, 397
Iron from heating-furnaces, Device for drawing.....	W. Stephens.....	118, 165
Iron-furnaces, Machine for charging.....	E. G. Scovil.....	114, 356
Ironing and stretching board.....	J. W. Davis.....	116, 277
Ironing-board.....	A. G. Beek.....	114, 515
Ironing-board.....	B. D. Brown and D. Moyer.....	120, 030
Iron into steel, Process of converting.....	T. Brooks.....	118, 100
Ironing-machine.....	G. F. Taylor.....	121, 908
Iron, Machine for scraping.....	C. Zug.....	113, 611
Iron, Machine for upsetting.....	M. L. Munger and C. D. W. Gibson.....	111, 136
Iron, Manufacture of.....	D. D. Taylor.....	117, 576
Iron, Manufacture of.....	L. S. Goodrich.....	120, 871
Iron, Medicinal preparation of.....	W. A. Aspinall.....	115, 805
Iron-ores, Smelting.....	C. Cochrane.....	116, 558
Iron, Process for the manufacture of.....	C. Adams.....	121, 226
Iron rim for wagon wheels.....	L. Hubbard.....	117, 077
Irregular forms, Machine for cutting.....	J. W. Campbell.....	115, 820

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
<i>J.</i>		
Jack, Ærostatic	A. V. Ojeda	118, 475
Jack, Boot	J. Crabtree	110, 743
Jack, Boot	E. Coleman	111, 613
Jack, Boot	J. Rouard	112, 638
Jack, Boot	M. A. Richardson	114, 970
Jack, Carriage	D. Heistand	114, 816
Jack, Carriage	A. H. Wellbrock	115, 140
Jack, Carriage	H. L. Riouff	117, 114
Jack for finishing shoes, &c	J. E. Plummer	119, 533
Jack for replacing cars	D. Moritz	118, 965
Jack for spinning, Self-acting	P. McGovern	113, 784
Jack for spinning, Self-acting	P. Keane	117, 893
Jack, Lifting	O. A. Anthony	110, 818
Jack, Lifting	B. F. Johnson	111, 942
Jack, Lifting	H. J. Wilson	113, 381
Jack, Lifting	H. F. Morrison	115, 086
Jack, Lifting	J. U. Smith	116, 232
Jack, Lifting	E. R. Gard	116, 296
Jack, Lifting	H. Ballentine	116, 534
Jack, Lifting	S. D. Jones	118, 020
Jack, Lifting	T. Maxon	118, 955
Jack, Lifting	L. P. Smith	120, 402
Jack, Lifting	W. H. Greenwalt	120, 511
Jack, Lifting	A. A. Davis	120, 864
Jack, Lifting	W. L. Rayment	121, 002
Jack, Lifting	W. L. Burgin	121, 081
Jack, Lifting	J. D. Johnson	121, 721
Jack, Lifting	A. E. Goddard	121, 774
Jack, Shoemakers'	A. Rust	113, 935
Jack, Shoemakers'	F. Weissenborn	119, 675
Jack, Suspended lifting	H. C. Havemeyer	120, 275
Jack, Wagon	G. H. Tule	111, 098
Jack, Wagon	G. B. Fowler	113, 285
Jack, Wagon	A. R. Giles	114, 937
Jack, Wagon	J. Wagner	115, 396
Jack, Wagon	J. Weathers	121, 030
Jam-nut	W. H. Van Cleve	120, 798
Jar, Confectionery	J. S. Batchelder	118, 898
Jar, Fruit	M. R. Bissell	111, 607
Jar, Fruit	L. C. Straub	117, 121
Jar, Fruit	H. U. Allen	122, 143
Jar, Glass	W. M. Kirchner	115, 326
Jar-movements for rock-drills	H. Sontag	117, 573
Jellies, Fruit	C. Alden	116, 912
Jewelry-case	J. Smith	116, 506
Jewelry-fastening	R. J. Pond	122, 192
Jig-saw	C. D. Moore	118, 041
Jig-saw	A. H. Whitney	118, 087
Joint, Carriage-seat	J. A. Hanna	121, 362
Joint for desks or seats	L. and W. F. Sylla	115, 383
Joint for folding furniture	N. Thompson	121, 735
Joint for frames of folding umbrellas	A. S. Hubbell	110, 918
Joint for gas-retorts, Air-tight	C. F. Dietrich and A. Schussler	115, 586
Joint for railway-rails	W. W. Robison	111, 006
Joint for school-desks, &c	T. Gregg	119, 515
Joint for shaft-couplings, Universal	J. F. Emmert	116, 939
Joint for shaft-couplings, Universal	G. V. Black	117, 773
Joint of breast-pins	D. O. Stanley	120, 601
Joint or coupling, Sucker-rod	J. H. Beatty	117, 371
Joint, Railway-rail	G. E. Morris and C. W. Gregory	115, 630
Joints for pipe-couplings, Combined rubber and copper-wire	F. Kibler	117, 546
Joints of frames, Method of securing	C. F. Linscott	111, 128
Joint, Tongue-and-groove	R. Barton	113, 835
Journal, Bearing	A. F. Jones	116, 317
Journal, Bearing	S. P. and H. B. Cook	117, 868
Journal, Bearing	E. D. Murfey	121, 804
Journal-bearing and lubricating-device	D. N. M. Peregay	122, 277
Journal-box	J. Schieder	111, 479
Journal-box	A. G. Brown	113, 490
Journal-box	W. T. Carroll	113, 494
Journal-box	S. E. Ellis	114, 542
Journal-box	G. H. Carlis	117, 386
Journal-box	J. B. Sargent	118, 647
Journal-box	J. D. Beers	121, 040
Journal-box and axle-bearing	S. T. F. Sterick	117, 217
Journal-box, Anti-friction	H. P. Westcott	112, 660
Journal-box, Anti-friction	B. C. Baker	116, 795

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of inventor.	No.
Journal-boxes, Bearing for.....	H. Grogan	116, 952
Journal-boxes, Oil-hole cover for	W. A. Wood	120, 693
Journal-box for railway-cars	R. Brewer	122, 219
Journal-box, Railway	I. Dripps	117, 753
Journal-box, Self-oiling	J. Sault	119, 412
Journal of car-axles, Cooling	H. G. Thompson	112, 511
Journal of car-wheel axles, Cooling	H. G. Thompson	112, 512
Journals and bearings, Composition for.....	M. J. Marcotte	117, 652
Journals, Composition for lubricating.....	R. C. Klein	113, 176
Journal, Mode of lubricating	S. Ustick	119, 238
Journals of car-axles, Device for cooling	H. G. Thompson	112, 510
Journals of railway-cars, Device for cooling	H. G. Thompson	112, 513
Journals, Oiling	W. G. Winue	117, 845
Jump-seat	N. Warren and T. Underwood.....	121, 563
K.		
Keep and brace for fifth-wheels	F. D. Morse	112, 950
Keeper for door-latches	W. Harvey	122, 011
Kettle	D. Stewart	119, 666
Kettle, Butter.....	J. Liming	116, 844
Kettle-handle	H. T. Robbins	114, 860
Kettles for evaporating cane-juice, &c., Setting	F. M. Bridgnac	119, 501
Kettle, Tea	C. W. McClure and W. A. Shepard	112, 266
Kettle, Tea	P. V. B. Gantz	112, 581
Kettle, Tea	D. Card	112, 543
Kettle, Tea	A. F. Wolf	121, 071
Key-board	J. P. Perry	115, 096
Key-board for reed and pipe organs	C. Fogelberg	121, 768
Key-board for musical instrument	W. D. Edgar	119, 335
Key-board musical instrument	E. Hamlin	121, 778
Key, Door	C. C. Carpenter	112, 123
Keyed musical instruments, Automatic attachment for	H. Downes	115, 286
Key-fastener	L. Tobey	114, 992
Key for locks, Steel-metal	T. Powers	117, 110
Key for padlocks	E. L. Gaylord	117, 064
Key for sewing-machine locks	E. L. Gaylord	121, 096
Key-hole guard	F. Jenny	119, 851
Keys, Machine for turning	J. Terry, jr., and S. McG. Hunter	117, 348
Key-hole guard	G. C. Bovey	113, 621
Key-tag	C. L. Carter	114, 103
Key-hole protector	J. H. Parker	115, 093
Key-ring and door-fastener, Combined	B. H. Melendy	111, 762
Kiln	A. Batchelar	114, 095
Kiln	G. A. Wedekind and H. Dueberg	114, 499
Kiln, Brick	J. M. McCarthy	113, 185
Kiln, Brick	F. E. Hoffmann	115, 734
Kiln, Brick	B. Wallis	115, 793
Kiln, Brick	L. C. Brewer	116, 016
Kiln, Brick	B. R. Hawley	118, 364
Kiln, Brick	T. Lindsley	120, 202
Kiln, Brick	T. Lindsley	121, 179
Kiln for burning brick, lime, &c.	W. P. Hall	120, 965
Kiln for reburning bone-black	E. P. Eastwick	114, 780
Kiln for the manufacture of artificial stone	D. M. Sprogle	120, 834
Kiln for drying malt	J. A. Remer	111, 569
Kiln, Lime	T. A. Kirk	112, 468
Kiln, Lime	D. H. Turbett	117, 222
Kiln, Lime	J. Q. Merriam and A. J. Deitrick	120, 307
Kiln, Lime	M. Groh and J. V. Weitz	120, 378
Kindling-material	T. S. Schwartz	113, 578
King-bolt	W. Vonders-aar	112, 517
Kisses, Machine for wrapping	C. C. Wilson	110, 812
Kite	J. Ferris	117, 270
Kite	O. Maddaus	121, 056
Knapsack	C. W. Shaefer	116, 874
Kneading-machine	E. McAllister	122, 184
Knife and fork rest	L. R. J. Cherrington	116, 807
Knife and fork scourer	E. J. Marsh	114, 578
Knife and fork, Table	M. Chapman	116, 412
Knife and pencil sharpener, Combined	J. McClure	116, 732
Knife, Band	F. Coulon	116, 027
Knife, Brick	J. Garity	118, 230
Knife-cleaner	J. Seeberger	116, 635
Knife-cleaner	W. S. Beebe, J. T. Baynes, and A. A. King	121, 747
Knife, Hay	G. F. Weymouth	112, 400
Knife, Hay	G. Reiber	118, 390
Knife, Hay	J. H. Wolfe	118, 571
Knife, Kitchen	J. W. Androvatt and T. W. Joline	114, 388
Knife, Paring and slicing	H. P. Brooks	119, 963
Knife-polisher	W. H. Cummings	121, 339

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Knife, Skinning.	M. Rufe.	114, 975
Knife-scourer	D. S. Neal.	115, 885
Knife scourer and sharpener	D. Crowell jr.	116, 029
Knife-sharpener	J. J. Russ.	116, 495
Knitting-machine	W. H. H. Hollen.	110, 656
Knitting-machine	G. W. Folts and J. L. Branson.	112, 027
Knitting-machine	J. M. Armour.	113, 965
Knitting-machine	H. Pudder and T. W. Hulbert.	115, 953
Knitting-machine	L. B. Hunt.	117, 293
Knitting-machine	J. M. Howe.	117, 886
Knitting-machine	S. H. Roper.	117, 931
Knitting-machine and process of knitting	N. Clark.	121, 924
Knitting-machine needle	S. H. Roper.	119, 651
Knitting-machines, Bar for.	L. Kavanaugh.	117, 299
Knitting-machines, Manufacture of latch-needles for.	S. Woodward.	116, 386
Knitting-machines, Sinker-wheel for.	H. C. Bradford.	115, 426
Knitting-machines, Stop-motion and creel-stand for.	H. C. Bradford.	116, 677
Knitting-machines, Stopping-mechanism for.	R. Cook.	119, 448
Knives, pocket, handle of.	C. Beckham.	115, 675
Knob, Carriage-curtain.	W. D. Douglass.	111, 522
Knob for drawers, &c.	N. Thompson.	119, 429
Knob for tea-pots, Sheet-metal	J. Britton.	119, 739
Knob for picture-nails.	W. E. Sparks.	118, 400
Knob-latch and lock, Combined.	S. H. Wheeler.	117, 023
Knob-latch, Reversible.	W. H. Andrews.	111, 028
Knob-latch, Reversible.	H. M. Ritter.	113, 096
Knob-latch, Reversible.	H. M. Ritter.	113, 097
Knob-latch, Reversible.	W. T. Munger.	113, 909
Knob-latch, Reversible.	H. H. Elwell.	116, 697
Knobs, Machine for molding.	C. H. Palmer.	111, 470
Knobs to their spindles, Attaching.	C. Morrill.	110, 992
Knobs to their spindles, Attaching.	W. A. Fenn.	112, 134
Knobs to their spindles, Attaching.	J. F. Keller and N. Schnur.	112, 354
Knobs to their spindles, Attaching.	O. L. Smith.	115, 650
Knobs to their spindles, Attaching.	M. Andrew.	115, 675
Knobs to their spindles, Attaching.	W. A. Fenn.	116, 941
Knobs to their spindles, Attaching.	M. W. Barse.	120, 302
Knuckle-protector for washing clothes	G. W. Doty.	121, 496
L.		
Labeling round boxes, Machine for.	E. Tyrrell.	115, 789
Labels, Hat-linings and ornamental	T. W. Bracher.	119, 563
Lace-knitting machine	H. Williamson.	120, 474
Ladder.	J. H. Conley.	112, 532
Ladder.	G. H. Ellis.	112, 697
Ladder.	J. Maxwell and T. Gray.	117, 156
Ladder.	F. Eells.	122, 232
Ladder, Extension.	R. F. Delmont.	113, 273
Ladder, Extension.	E. O. Shepardon.	117, 117
Ladder, Fire-escape.	W. B. Peregor.	112, 276
Ladder, Fire-escape.	T. Wimmer.	113, 958
Ladder-stand.	D. R. Burkholder.	115, 696
Ladder, Step.	W. G. Phillips.	110, 755
Ladder, Step.	M. B. Geary.	112, 442
Ladder, Step.	W. Huey.	120, 138
Ladder, Step.	J. S. Oakley.	121, 190
Ladle for canning fruits.	R. D. Baker.	117, 723
Ladle for pouring wax.	P. Loeb.	115, 140
Lady's elastic supporter.	G. C. Stillson.	116, 832
Lamp.	F. T. Grimes.	110, 643
Lamp.	A. Albertson.	110, 516
Lamp.	R. S. Merrill.	111, 072
Lamp.	R. Nutting.	111, 237
Lamp.	C. D. Macqueen.	111, 360
Lamp.	H. A. Schottky.	111, 451
Lamp.	F. T. Grimes.	111, 531
Lamp.	H. J. Goff.	112, 586
Lamp.	W. Scarlett.	114, 609
Lamp.	C. B. and S. S. Mann.	114, 954
Lamp.	F. Yeiser and S. W. Hedger.	115, 262
Lamp.	M. Samuels.	115, 528
Lamp.	H. H. Laughlin.	115, 329
Lamp.	L. J. Atwood.	115, 421
Lamp.	F. T. Grimes.	119, 842
Lamp.	J. W. Shaier.	119, 887
Lamp.	G. W. Thompson.	120, 172
Lamp.	W. Scarlett.	121, 008
Lamp.	M. W. House.	121, 521
Lamp.	E. Boesch.	122, 217
Lamp, Advertising.	E. Boesch.	112, 590
Lamp and lantern, Street.	J. N. Aronson.	114, 513

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Lamp and reflector, Combined.....	H. J. Goff.....	113, 650
Lamp bracket or support.....	H. Campbell.....	121, 583
Lamp-chimney and dish-washer.....	C. S. and S. A. Moore.....	111, 368
Lamp-chimney cleaner.....	L. Ward.....	116, 121
Lamp-chimney cleaner.....	R. Pearson.....	117, 452
Lamp-chimney cleaner.....	C. B. Clark.....	117, 741
Lamp-chimney cleaner.....	J. Smith.....	119, 890
Lamp-collar.....	H. Kelley and W. H. Locke.....	114, 302
Lamp, Construction of.....	J. J. Hoyt and J. E. Crane.....	112, 598
Lamp-extinguisher.....	W. C. Ruge.....	118, 280
Lamp for coal-oil stoves.....	J. Bowles.....	111, 512
Lamp, Gas.....	J. Gray.....	120, 058
Lamp, Glass.....	J. Adams.....	110, 815
Lamp, hand, Gas.....	H. J. Rice.....	117, 331
Lamp, Miners'.....	W. C. Winfield.....	115, 143
Lamp-posts, Sediment-chamber for.....	J. W. Graham.....	119, 347
Lamps, &c., Device for securing collars to.....	E. S. Kennedy.....	114, 689
Lamps, Coating.....	G. W. T. Thomson.....	113, 365
Lamp, Self-lighting.....	W. W. Batchelder.....	114, 389
Lamp, Self-lighting.....	W. W. Batchelder.....	119, 497
Lamp-shade.....	M. H. Collins.....	113, 982
Lamp-shade.....	M. H. Collins.....	114, 766
Lamp-shade.....	M. H. Collins.....	117, 260
Lamps, Shade-holder for.....	M. W. House.....	112, 459
Lamps, Shade-holder for.....	J. W. Lyon.....	113, 181
Lamp-shades, Folding.....	H. M. Hartsborn.....	110, 651
Lamp-shades, Manufacture of.....	J. H. Hobbs, C. W. Brockemier, and W. Leighton.....	114, 140
Lamp-shade supporter.....	E. Russell.....	115, 527
Lamps, Lenticular globe for.....	G. W. Morrison.....	114, 701
Lamps, Machine for forming glass chimneys for.....	M. H. Collins.....	119, 222
Lamp, Soldering.....	W. H. Tallman.....	118, 653
Lamps, Reflector for.....	J. W. Haines.....	116, 953
Lamp, Street.....	J. F. Kerns.....	110, 922
Lamp, Street.....	G. Brandon.....	112, 774
Lamp, Street.....	J. Benson.....	114, 518
Lamp, Street.....	R. H. Smith.....	116, 234
Lamp, Street.....	T. North.....	116, 476
Lamp, Street.....	W. G. Schmidlin and J. W. Driscoll.....	117, 470
Lamp support, Carriage.....	T. P. White.....	116, 381
Lamp-supporter.....	E. Russell and F. W. Platt.....	116, 224
Lamp-wick.....	J. Farrell.....	115, 045
Lamp-wick.....	H. T. Robbins.....	115, 124
Lamp-wick adjuster.....	L. B. Lathrop.....	119, 275
Lamp-wick, Chemically prepared.....	A. M. Daniels.....	113, 269
Lamps, Wick-regulator for.....	H. Beebe.....	114, 906
Lamp-wick tube.....	E. H. Haynes.....	115, 607
Land-carriage, Steam.....	J. B. McKinley.....	111, 761
Land-conveyances, Propelling apparatus for.....	J. Woolf.....	116, 130
Lantern.....	N. Gear.....	114, 432
Lantern.....	J. Orphy.....	114, 471
Lantern.....	A. E. Taylor.....	115, 385
Lantern.....	W. Porter, jr.....	115, 891
Lantern.....	O. L. Gridley and C. Engelskerchen.....	116, 177
Lantern.....	F. M. Ford.....	117, 399
Lantern.....	F. A. Balch.....	118, 576
Lantern.....	J. J. Hull and J. Kaufman.....	119, 518
Lantern.....	W. Westlake.....	119, 549
Lantern.....	M. B. Dyott.....	119, 920
Lantern.....	A. French.....	121, 241
Lantern, Advertising.....	T. L. Wright.....	121, 923
Lantern-globe holder.....	J. S. Dennis and W. F. Kistler.....	115, 035
Lantern-globe holder.....	J. H. Irwin.....	115, 059
Lantern-holder, Body.....	S. C. Fessenden.....	112, 436
Lantern, Signal.....	W. S. Roberts and E. H. Fiske.....	118, 278
Lantern, Street.....	A. Tufts.....	112, 396
Lantern, Street.....	J. W. Bartlett.....	116, 399
Lantern, Street.....	J. F. Harly.....	119, 355
Lantern, Street.....	M. A. Heath.....	119, 762
Lantern, Street.....	A. Burger.....	121, 327
Lap-board.....	D. P. Cook.....	112, 126
Lap-board.....	C. Trefethen.....	118, 303
Lard, boiling, &c., Deodorizing the gases from.....	W. M. Neill.....	122, 273
Lard-package.....	J. Ring.....	114, 971
Last, &c.....	H. Wight.....	118, 663
Latch and lock, Combined.....	M. P. Warner and E. W. Payner.....	119, 673
Latch and lock, Combined.....	J. H. Morse.....	121, 253
Latch and lock, Combined.....	V. Frazee.....	121, 769
Latch, Combined.....	A. D. Judd.....	114, 152
Latch, Door.....	E. K. Breckenridge.....	114, 910
Latch, Door.....	E. S. Bitner.....	113, 729
Latch, Door.....	H. Sanders.....	114, 608

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Latch for gates	C. B. Clark	119, 263
Latch for gates	H. D. Alderfer	119, 491
Latch for gates and doors	J. H. Allison	119, 552
Latch, Gate	C. Coyle	110, 957
Latch, Gate	W. Fosket	111, 626
Latch, Gate	C. W. Fox	116, 042
Latch, Gate	C. H. Frietag	117, 401
Latch, Gate	J. H. Lee	119, 374
Latch, Reversible	H. Dotzenroth	110, 637
Lath-bolts, Machine for cutting	T. Crispin	118, 205
Lathe	J. Kievlan	112, 051
Lathe	J. F. C. Rider and P. Brownell	113, 798
Lathe	J. P. Allen	114, 512
Lathe	H. R. Hill and N. W. Twiss	118, 938
Lathe	H. Chavons	119, 012
Lathe	B. Lawrence	121, 878
Lathe and gear-cutter, Combined	U. Uppermann	118, 262
Lathe-attachment for chasing designs on molds	J. E. Miller	120, 593
Lathe-chuck	A. F. Cushman	110, 903
Lathe-chuck	J. C. Miller	114, 700
Lathe-chuck	A. H. Wagner	116, 649
Lathe-chuck	C. E. Albro	120, 015
Lathe-chuck, Machinists'	A. F. Cushman	120, 863
Lathe, Dental	E. C. Rishel	110, 869
Lathe-dog	H. K. White	112, 759
Lathe for cutting grooves in metal rollers	H. Waters	115, 000
Lathes, chucking, Drill-rest for	G. E. Johnson and W. Boston	118, 614
Lathe for turning axles	A. J. Bower	115, 424
Lathe for turning wood	I. Rood	110, 871
Lathe, Railroad-car axle	G. A. Gray, jr	114, 670
Lathes, Adjustable tool-rest for	J. S., A. N., and O. Wheeler	116, 517
Lathes, Chuck for	J. Rich	113, 095
Lathes, Self-centering chuck for	G. O. Buckley	112, 119
Lathe-spindles, Hold-fast for	L. R. Fraught	115, 290
Lathe, Spoke	J. Pierce and A. B. Curtis	118, 148
Lathe-tool supporter	I. F. Brown	116, 545
Lathe, Turning	S. D. Sheldon	112, 971
Lathe, Turning	F. B. Miles	111, 859
Lathe, Turning	P. J. Hardy	113, 043
Lathes, Universal slide-rest for	E. G. Chormann	117, 513
Lathe, Wood	A. Pries and H. Arnold	121, 417
Lathing, Metallic	J. V. Holmes	122, 171
Lath-machine	C. Schleicher	111, 259
Lath-machine	J. C. Mackay	112, 261
Laundry, Portable	J. Morrison	111, 864
Lawn-sprinkler	J. Lessler	121, 949
Lead, &c., Manufacture of carbonate of	G. T. Lewis	112, 603
Lead and silver ores, Desulphurizing and volatilizing	G. T. Lewis	116, 604
Lead and zinc, Process of refining and whitening the product of sulphurets of	G. T. Lewis	112, 606
Lead and zinc, Refining and whitening the product from ores of	G. T. Lewis	112, 607
Lead-pencil	P. Hufeland	116, 713
Leather, Composition for dressing and coloring	Z. A. Taylor	116, 886
Leather, Composition for preserving and coloring	O. F. Battey	117, 144
Leather, Compound for coloring	G. Jäger	121, 375
Leather, Cutter for cutting washers from	E. R. Brown and J. Long	115, 157
Leather, Japanned	F. S. Merritt	114, 586
Leather, Japanned, Manufacture of	F. S. Merritt	115, 083
Leather, Machine for boarding	U. R. Williams and W. P. Martin	110, 944
Leather, Machine for boarding, pebbling, and glossing	O. Coogan	119, 743
Leather, Machine for brushing and finishing	G. H. Parker	118, 146
Leather, Machine for creasing	B. R. Hamilton and S. Swan	115, 312
Leather, Machine for cutting	H. Z. Baker	111, 900
Leather, Machine for cutting	A. Keith	112, 353
Leather, Machine for cutting	H. H. Bigelow	113, 618
Leather, Machine for cutting and stripping	J. E. Coffin, C. E. Morrill, and G. F. Hall	113, 189
Leather, Machine for dicing	A. Shedlock	112, 136
Leather, Machine for dressing	E. Fitzhenry	118, 003
Leather, Machine for finishing	J. P. Friend	117, 877
Leather, Machine for removing grease from	J. Perkins and G. L. Newcomb	122, 130
Leather, Machine for piercing	A. Eggleston	113, 563
Leather, Machine for rolling	J. G. Curtis	115, 445
Leather, Machine for rolling	N. Linsley	121, 389
Leather, Machine for scouring and stretching	J. C. Parmelee	117, 921
Leather, Machine for scouring, polishing, and glossing	D. Harrington	114, 809
Leather, Machine for splitting and skiving	A. Cochran	113, 631
Leather, Machine for tearing up	E. S. Hidden	116, 055
Leather, Manufacture of	S. B. Jents and F. A. Holcomb	111, 214
Leather, Manufacture of artificial	F. Walton	111, 100
Leather, Ornamenting	L. Wolfson	119, 291

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Leather-polish	H. A. and R. G. Sayer	114, 354
Leather-punching and cutting machine	E. E. Hardy and N. Dubrul	111, 533
Leather-punching and feeding machine	W. Barry	111, 719
Leather-punching machine	J. Matheis	111, 957
Leather-rounding machine	J. H. Tizzard	113, 707
Leather skins, &c., Machine for pressing and finishing	N. D. Morey	121, 727
Leather, sole, Cutting up and punching	L. D. Hawkins	120, 642
Leather, Tool for rounding	L. R. A. Sweatt	117, 575
Leather to resemble cloth	M. Altmann	111, 716
Leather, Varnish for	C. Brumby	118, 842
Leather, Wire thread for sewing	C. Rowland	114, 204
Leg and foot rest	E. Withall	120, 176
Leg, Artificial	J. E. Hanger	111, 741
Leggotyping	W. A. Leggo	112, 933
Let-off mechanism	G. Bailey	115, 806
Let-off mechanism	W. H. Howard	117, 779
Letter-board for object-teaching	J. H. Palm	115, 349
Letter-box	C. Levis	111, 461
Letter-box	J. A. Farrington	120, 578
Letters and numbers on metallic plates for signs, &c., Electroplating	J. J. Pratt	113, 090
Letters on metal plates, Device for raising	R. R. Foote	118, 005
Level and clinometer, Pendulum	W. Johnson	114, 014
Lids to gas-retorts, Securing	S. Holman	117, 631
Life-boat	R. J. Robeson	117, 817
Life-boat	B. R. Beaupre	118, 580
Life-boat and bed-bottom, Combined	C. Büttgenbach	117, 977
Life-preserver	J. E. Thomson and E. Clark	118, 168
Life-preserver	M. Ormsbee	120, 089
Life-preserver	B. W. Taylor	115, 386
Life-preserver	T. R. Scott	121, 132
Life-raft	H. C. Calkin	121, 275
Lifter, Drop-hammer	F. M. Hodge	110, 655
Lifter for fruit-jar	S. R. Pinckney	112, 955
Lifter for spittoons, &c.	J. Walker and H. F. Lilly	113, 822
Lifter, Pressed-fruit	C. A. Raymond	112, 959
Lifting-apparatus	C. H. Douglas	115, 942
Lifting-machine	C. A. Simmons	117, 339
Lifting-machine	F. B. O'Connor	118, 740
Ligature, protector, and fertilizing-bag for fruit-trees, Combined	S. P. Gilbert	116, 001
Lighting and heating purposes, Apparatus for	A. M. Silber and F. White	118, 999
Lighting-apparatus, Electric	A. P. Berlioz	115, 154
Lighting-attachment for alarm-clocks	H. K. Wright	113, 236
Lightning-conductor	O. Preston	120, 457
Lightning-rod	D. Munson	110, 778
Lightning-rod	J. R. Fricke	111, 052
Lightning-rod	J. R. Fricke	112, 137
Lightning-rod	S. D. Cushman	112, 426
Lightning-rod	D. A. Foot and G. S. Knapp	113, 154
Lightning-rod	L. King	113, 530
Lightning-rod	A. A. Gaylord	113, 869
Lightning-rod	G. A. Stephenson and O. L. Sutliff	118, 166
Lightning-rod	D. Munson	119, 043
Lightning-rod	S. H. Miner	121, 884
Lightning-rod	M. D. Phelps	122, 055
Lightning-rod	C. P. Snow	122, 290
Lightning-rod connection	A. Coddington	119, 323
Lightning-rods, Machine for making	G. S. Knapp	119, 987
Lightning-rods, tubular, Machine for joining	G. S. Knapp	116, 453
Limb, Artificial	S. B. Kepperling and T. B. Kreiter	115, 065
Lime, Manufacture of acetate of	C. J. T. Burcey	118, 787
Lime, unslacked, Protecting-apparatus therefor	H. Bisbing	118, 680
Line-connector	C. Jarvis	122, 021
Line-holder	J. D. Sater	121, 006
Line-holder and wardrobe-hook, Combined	C. Goddard	118, 361
Line holder, Mackerel	E. L. Decker	112, 326
Lining for safes, Electric	E. Holmes and H. C. Roome	120, 874
Lining oil-barrels	M. G. Huntly	121, 106
Lining walls with felt, &c.	J. Phillips	112, 376
Link	J. H. McIntire	121, 725
Link for chain-couplings	S. F. Lamb	121, 225
Link-joint for watch-chains	C. B. Carpenter	120, 850
Liquid for galvanic batteries	V. Barjon	116, 917
Liquid for use in vapor-engines, Compound	J. A. H. Ellis	111, 329
Liquid-measuring apparatus	J. Schmidt	122, 195
Liquid-receptacle and funnel	W. H. Mumler	113, 786
Liquids, Apparatus for atomizing	A. M. Shurtleff	114, 482
Liquids, Apparatus for distilling and concentrating	C. C. Parsons	110, 997
Liquids, Apparatus for evaporating	J. Howarth	114, 295

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Liquids, Apparatus for evaporating saline and other ..	J. Howarth	116, 711
Liquids, Apparatus for heating	D. H. Burrell	112, 120
Liquids, Apparatus for filtering	T. R. Sinclair	120, 908
Liquids, Apparatus for forcing	M. E. Ogden	120, 895
Liquids, Ejector for forcing	J. T. Hancock	121, 515
Liquids, Feed-regulator for	H. Seyter	121, 010
Liquids, Forcing	J. Van Norman	113, 115
Liquids, gas-charged, Machine for bottling	E. D. Taylor	118, 069
Liquids, Machine for bottling	J. V. Mathivet	118, 036
Liquor-discharge, Automatic	A. C. Rowe	114, 607
Loading and dumping machine	M. Phillips	117, 322
Lobe-attachment for ear-drops	L. L. Northrup	119, 530
Lock	H. R. Towne	118, 986
Lock	E. D. Hodgson	120, 743
Lock	T. Stewart	121, 680
Lock, Alarm	J. H. Thorp	112, 987
Lock, Alarm	C. E. Pierce	119, 403
Lock, Alarm	J. T. Taylor	120, 125
Lock, Alarm	C. Schnepf	120, 541
Lock and latch, Combined	S. H. Wheeler	113, 377
Lock, Combination	S. Loyd	113, 316
Lock, Combination	J. W. H. Doubler	115, 037
Lock, Combination	S. Miller	117, 912
Lock, Combination	G. H. Peacock	119, 948
Lock, Combination	W. N. Hall	118, 930
Lock, Combination	F. P. Marsden	122, 124
Lock-coupling for vehicles, Adjustable	G. G. Burgess	110, 823
Lock, Door	J. Welsh	111, 499
Lock, Door	J. M. Quimby and A. S. Dyer	112, 076
Lock, Door	W. T. Munger	113, 910
Lock, Door	T. A. Olsen	116, 214
Lock, Door	J. H. Kinsman	116, 452
Lock, Door	C. I. Stewart	118, 828
Lock, Door	F. Gyss	119, 758
Lock, Door	J. Brady	120, 704
Lock, Door	N. Warren	121, 142
Locked cock	H. Essex	112, 910
Lock for doors, &c	B. F. Roberts	111, 005
Lock for doors, &c	J. T. Williams	116, 907
Lock for double-barreled fire-arms	D. S. Wesson	114, 374
Lock for hand-cuffs	H. C. Cheney	113, 499
Lock for meeting rails of sashes	W. Miller	115, 341
Lock for piano, &c	E. D. Weyburn	120, 804
Lock for post-office boxes	S. N. Brooks	120, 177
Lock for railroad-cars	C. T. Gibson	117, 764
Lock for spool-holders	N. Kenney	120, 563
Lock, Hasp	W. N. Chamberlain	113, 496
Lock, Hasp	W. C. McGill	116, 469
Lock, Hasp	J. Fisher and G. Crompton	116, 581
Locking-cover for milk-cans	D. Burnett	115, 697
Locking-device for dog-collars	A. R. Scott	115, 647
Locking-nuts, Device for	J. Maitland	121, 724
Lock, Latch	N. Petre	111, 567
Lock-nut	L. J. Smith	115, 249
Lock-nut	R. W. Hamilton	117, 881
Lock-nut	J. Harvey	118, 238
Lock-nut	A. W. Bunnell	118, 684
Lock-nut	A. W. Bunnell	118, 685
Lock-nut	S. T. Lamb	121, 175
Lock-nut	S. T. Lamb	121, 176
Lock-nut for railway-joints	W. P. Horton	119, 767
Lock, Permutation	H. R. Towne	111, 587
Lock, Permutation	S. Loyd	112, 724
Lock, Permutation	W. Terwilliger	113, 465
Lock, Permutation	J. T. Adams	114, 510
Lock, Permutation	O. E. Pillard	114, 706
Lock, Permutation	J. Obernesser	115, 230
Lock, Permutation	J. Obernesser	115, 231
Lock, Permutation	G. L. Damon	115, 445
Lock, Permutation	D. K. Miller	116, 737
Lock, Permutation	E. Stockwell	117, 478
Lock, Permutation	D. L. Tower	120, 129
Lock, Permutation	O. E. Pillard	120, 396
Lock, Permutation	S. C. Weddington	120, 472
Lock, Permutation	J. F. Vinton and G. A. Hines	120, 915
Lock, Pin	A. Hermann and W. H. Taylor	113, 295
Lock, Prison	H. R. Towne	111, 586
Locks, permutation, Tumbler for	C. R. Flesch	113, 414
Locks, permutation, Tumbler for	W. Koch	117, 302
Lock, Railway-switch	A. Thomson	113, 112
Lock, Switch	A. W. Cram and W. B. Dunbar	116, 416
Lock, Trunk	J. Stanton	114, 217

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Lock, Trunk	J. H. Oliver	117, 805
Lock, Vault-cover	A. Richardson	122, 060
Lock, Window-sash	B. Hotchkiss	112, 042
Locomotive	A. S. Smith	113, 216
Locomotive	W. D. Arnett	117, 031
Locomotive	I. P. Magoon	117, 308
Locomotive	J. Cooke	119, 013
Locomotive	W. D. Arnett	120, 180
Locomotive	R. S. Gillespie	121, 283
Locomotive-engines, Exhaust-mechanism for	W. A. Carns	119, 219
Locomotive head-light	A. Collins and J. Hardy	116, 272
Locomotive, Marine	S. Lee	114, 832
Locomotives, Automatic apparatus for operating the valve of the exhaust-pipe of	R. C. Huse, jr	113, 299
Locomotive smoke-stacks, Cone for	D. B. Strobe	120, 835
Locomotives, Burning hydrocarbon on	A. C. Rand	119, 720
Locomotives, Conveyer of smoke and cinders for	A. M. Rodgers	114, 605
Locomotives, Conveyer of smoke and cinders for	A. M. Rodgers	119, 790
Locomotives, Driving-power for	W. D. Arnett	111, 603
Locomotive smoke-stack	E. A. Castellaw	113, 980
Locomotives, Smoke-stack for	L. Bell	115, 153
Locomotives, Smoke-stack of	E. H. Winchell	119, 808
Locomotives, Spark-arrester for	F. Kearney and L. F. Tronson	113, 528
Locomotives, Spark-arrester for	B. Garvin	119, 928
Locomotive steam-engine, Method of operating	G. Gartner and C. Diebold	121, 864
Locomotives, trucks, and railroad-cars, Apparatus for lifting	G. T. Nutter	114, 328
Log-binder	W. L. Dean	118, 697
Log-cart	A. Kirkwood	118, 460
Log-rolling machine	J. Torrent	120, 220
Logs, Device for turning and canting	D. S. Griffes	115, 194
Logs for clapboards, Machine for sapping	E. Webber	116, 377
Logs in saw-mills, Machine for handling	E. H. Stearns	121, 299
Logs, Machine for rolling	J. Torrent	117, 017
Logs, Machine for turning	E. H. Stearns	117, 828
Looking-glasses and pictures, Device for hanging	D. Crowell, jr	115, 713
Loom	R. Elliott	110, 640
Loom	H. D. Davis	110, 904
Loom	H. E. Towle	111, 278
Loom	E. B. Hastings	111, 343
Loom	W. H. Boozer	112, 679
Loom	W. R., J. A., and W. R. Giffard, jr	113, 238
Loom	S. Boorn	114, 756
Loom	J. F. Crowley	114, 929
Loom	A. Nimmo	115, 508
Loom	J. D. Davies and W. E. Yates	115, 938
Loom	R. B. Goodyear	117, 533
Loom	J. G. Frick	117, 616
Loom	E. Oldfield	117, 672
Loom	J. Detweiler	118, 114
Loom	W. V. Gee	120, 510
Loom	H. J. Davis	121, 161
Loom for weaving hair-cloth	I. Lindsley	119, 277
Loom for weaving hair-cloth	I. Lindsley	119, 278
Loom for weaving hair-cloth and fabrics produced thereon	I. Lindsley	119, 276
Loom-harness, Machine for making	J. Sladdin	121, 258
Loom-harness, Machine for manufacturing	J. H. Crowell	117, 389
Loom-harness operating-mechanism	R. B. Goodyear	119, 459
Loom, Lappet	J. Clough and J. Crompton	112, 785
Loom-picker	J. M. Parker	111, 378
Loom-picker motion	J. C. Fisher	116, 251
Loom-picking apparatus	E. D. Gove	121, 359
Loom-picking motion	H. A. Whitten and E. D. Gove	111, 595
Looms, Automatic oiler for	J. Crook	122, 159
Looms, Box-operating mechanism for	H. Wyman	111, 417
Looms, Cloth-beam for	J. P. Hillard	117, 630
Looms, Harness-mechanism for	J. Booth	121, 842
Looms, Harness-operating mechanism for	G. Crompton	111, 324
Looms, Harness-operating mechanism for	O. Plummer	118, 969
Loom-shuttle	T. Isherwood	115, 614
Loom-shuttle	J. Lofendahl	117, 183
Loom-shuttle	E. A. Thissell	117, 220
Loom-shuttle	F. O. Tucker	119, 201
Loom shuttle-box mechanism	J. Ashworth	121, 838
Loom shuttle-box mechanism	J. M. Stone	121, 907
Looms, Let-off mechanism for	H. A. Remington	111, 002
Looms, Let-off mechanism for	T. Gorrell	114, 667
Looms, Let-off mechanism for	F. W. Grachen	117, 768
Looms, Let-off mechanism for	A. J. Woodman	120, 843
Looms, Let-off mechanism for	C. Schilling	121, 131

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Looms, Let-off mechanism for	J. Clegg	111, 816
Looms, Let-off mechanism for	T. Flinn	113, 415
Looms, Let-off mechanism for	E. B. Bigelow	113, 483
Looms, Let-off motion for	F. W. Graichen	116, 437
Looms, Picker-staff check for	C. A. Hooper	120, 068
Looms, Picking-mechanism for	H. R. Fry	118, 446
Looms, Shuttle for	C. E. Smith	112, 643
Looms, Shuttle for	J. Ruttner	114, 155
Looms, Shuttle for	E. W. Marble	114, 167
Looms, Shuttle for	D. Wright	115, 006
Looms, Shuttle for	J. Lyall	116, 609
Looms, Shuttle-guard for	J. Rycroft and L. A. White	116, 499
Loom take-up	W. Rouse	114, 606
Looms, Take-up mechanism for	J. Michna and G. Fisher	112, 478
Looms, Warp-shedding mechanism for	J. Holding and J. Eccles	119, 848
Looms, Weft-fork for	J. H. Knowles	114, 307
Looms, Weft-stop mechanism for	J. J. Switzer	119, 798
Loop-branding machine	G. W. Weeks	121, 031
Loose pulleys, Lubricating	S. Ustick	119, 287
Lotion for protecting animals against flies	J. Green	120, 191
Lounge	O. Kubitschky	110, 923
Lounge and bed	J. C. Hall	112, 031
Lounge and bedstead, Combined	J. C. Hall	120, 270
Lounge and chair, Combined	S. Herschmann	114, 679
Lounge, Bed	V. Von Dissen	113, 372
Lounge, Bed	G. Hartzell and J. P. Reissneider	115, 732
Lounge, Bed	B. F. Walton	116, 514
Lounge, Bed	A. F. Benton	118, 677
Lounge, Extension	J. S. Paine	113, 333
Lounge, Extension	V. O. Hart and J. Benjamin	117, 775
Lounge, Folding	W. Prufrock	116, 350
Lozenge and other pastes, Machine for rolling	C. A. Oehl	114, 468
Lozenge-cutting machine	W. P. Eayrs	112, 231
Lozenges, &c., Machine for cutting	W. E. Damant	113, 635
Lubricating-apparatus for steam-engines	M. N. Ward	118, 078
Lubricating arrangement for axles of wagons	C. A. Wakefield	115, 914
Lubricating car-axle journals, Device for	E. Collins	118, 691
Lubricating-cup, Automatic	J. A. Bryan and W. Stainfield	111, 105
Lubricating loose pulley and journal	S. Ustick	119, 065
Lubricating railway-journal	C. R. Laman	114, 157
Lubricating railway-journals, Device for	C. W. Harvey	119, 087
Lubricating wool during the process of manufacture	J. J. Lundy	113, 679
Lubricator	W. Pratt and N. B. Williams	110, 677
Lubricator	J. Richter	110, 868
Lubricator	J. Fenwick	111, 401
Lubricator	N. Seibert	111, 881
Lubricator	S. F. Gates	112, 029
Lubricator	J. E. Uhl	112, 515
Lubricator	T. Reeves	112, 847
Lubricator	T. J. Nottingham	113, 200
Lubricator	W. E. Phillips	114, 194
Lubricator	C. Mather	114, 317
Lubricator	M. G. Ryan	114, 716
Lubricator	J. Hodge	116, 442
Lubricator	E. Ehlin	119, 751
Lubricator	D. F. Mosman	120, 660
Lubricator	W. T. Garratt	121, 611
Lubricator and anti-friction bearing	T. Roddick and J. Lockhead	120, 213
Lubricator for axles	H. Thurlow	111, 095
Lubricator for axles and other spindles	W. H. Harvey	120, 515
Lubricator for car-axles	J. Barber	121, 575
Lubricator for car-journals	S. Ustick	121, 557
Lubricator for car-wheels	J. M. Porter	114, 473
Lubricator for journals	P. S. Deolan	113, 860
Lubricator for loose pulleys	S. Ustick	111, 590
Lubricator for machinery	G. E. Smith	115, 247
Lubricator for picker-spindles in looms	T. Parker	119, 171
Lubricator for railway-car axles	I. P. Wendell	111, 286
Lubricator for railway car-axle boxes	I. P. Wendell	111, 287
Lubricator for steam-engine	H. C. De Land	112, 020
Lubricator for steam-engines	J. Harper	119, 269
Lubricator for steam-engines	C. Linch	121, 055
Lubricator for steam-engines	J. Harper	121, 779
Lubricator for steam and air passages	S. N. Goodale	120, 056
Lubricator for steam-valves and pistons	A. N. Allen and R. H. Dewey	120, 476
Lubricator for vertical shafting	L. Fagin	118, 705
Lubricator for wheels, pulleys, and journals	E. Douden	111, 918
Lubricator, Oil-hole cover for	S. A. Skinner	120, 677
Lubricator, Steam	D. Currie	111, 110
Lungs, chest, &c., Medical compound for treating diseases of the	M. E. Perrin	116, 863

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
M.		
Machinery, Apparatus for regulating the speed of	W. L. Gobby	120, 376
Machinery, Composition for lubricating	E. Q. Henderson	112, 453
Madder colors, Dyeing and printing	A. Paraf	120, 393
Madder, Composition of, for printing cloths, &c.	A. Paraf	113, 919
Madder extracts, Obtaining	A. Paraf	111, 142
Madder for dyeing, Composition of	A. Paraf	120, 392
Madder, Process of extracting the coloring-matter of	A. Paraf	110, 995
Madder, Product of	A. Paraf	113, 918
Magneto-electric machine	Z. T. Gramme and L. C. De Ivernois	120, 057
Mail-bag fastener	H. M. Stephenson and J. B. Tyer	113, 359
Mail-bag fastener	M. V. B. White	114, 239
Mail-bag fastening	D. F. Dodge	111, 521
Mail-bags, Device for delivering and receiving	G. W. Hildreth	118, 937
Mail-bags, Fastening for	T. McGrane	121, 646
Mail-tags, Machine for printing	G. H. Fayman	121, 602
Making ice and cooling, Apparatus for	F. Windhausen	111, 292
Making ice and refrigerating, Apparatus for	A. B. Tripler	112, 654
Mallet	J. B. Davids	117, 609
Malt-house	T. Krauch	121, 387
Malt in the kiln, Apparatus for stirring	W. Toepper	115, 390
Malt, Machine for bruising	J. F. Tibble	114, 882
Malt, Machine for degerminating	C. Sauter	111, 686
Malt-reservoir	F. C. Spess	115, 652
Mandrel for gauging and cutting solder-wire	L. Cutting	111, 912
Mandrel, Universal	J. Gallatin, jr	112, 580
Mangle	H. Tregellas	118, 654
Mangle, Steam	P. Rundguist	114, 863
Man-hole plate for steam-boilers	J. D. Samson	110, 872
Manures, pulverulent, Machine for sowing	N. G. Swift	116, 116
Marble, Coloring and staining	J. Zengeler	113, 127
Marble tops and backs of wash-stands, Attaching	W. J. Bender	113, 388
Marine propulsion	B. S. Heath	118, 127
Market-stall, &c	J. McCandless	117, 653
Marquetry	J. Dill	118, 595
Mash, Fermenting	C. H. Frings	116, 043
Mast, Connection of boom to	A. Gill	114, 128
Mat	P. W. Neefus	111, 559
Match-box	D. Burhans	115, 430
Match-box	A. D. Judd	121, 788
Match-box	L. O. P. Meyer	118, 627
Match-box	L. O. P. Meyer	120, 889
Match-case, Pocket	L. O. P. Meyer	120, 892
Matches, Machine for making	M. C. Young	118, 502
Match-holder	L. O. P. Meyer	118, 628
Match-holder	L. O. P. Meyer	120, 890
Match-holder	L. O. P. Meyer	120, 891
Match, Percussion	W. Servant	113, 937
Match-plates, Method and apparatus for molding	J. R. Davies	117, 391
Match-safe	W. Stine	113, 360
Match-safe, Sheet-metal	J. Musgrove	114, 323
Material called "ole-izerine" for dyeing and printing	A. Paraf	110, 994
Mats, Bird-cage	C. Schenck	114, 355
Matting-apparatus	J. H. Rielly	111, 086
Mattress	W. H. Pack and J. S. Vanhorn	112, 175
Mattress	J. Maas	121, 723
Mattress, Earth	T. W. Phinney	113, 921
Mattresses, &c., Machine for stuffing	E. L. Wright	118, 892
Mattresses, &c., Spring for	W. B. Judson	119, 153
Mattresses, cushions, and other articles of upholstery, Material for filling	W. H. Towers	117, 018
Mattress, Life-preserving	J. D. Greene	113, 652
Mattress, Spring	R. P. Cornell	114, 648
Mattress, Spring	H. Gardner, R. Lowe, J. and J. Wood, and J. Pickering.	120, 154
Measure, Liquid	W. M. Wright	113, 237
Measure, Lumber	W. E. Walton	120, 685
Measure, Tailors'	I. Du Bois	115, 180
Measuring-attachment for packaged fabrics	E. Morgan	111, 235
Measuring, stretching, and skeining silk, Machine for	S. K. Smith	114, 721
Meat and vegetable chopper	W. H. Peirce	114, 594
Meat, Apparatus for curing	W. G. Bell	121, 925
Meat-biscuit	A. Kirkwood	113, 063
Meat-chopper	J. L. Good	114, 799
Meat-chopper	M. L. Edwards	117, 999
Meat-chopper	N. True	120, 359
Meat-chopper	W. P. Patton	122, 051
Meat-chopper and vegetable-slicer	J. M. Taft	110, 801
Meat-crusher	O. P. Dennison	116, 166
Meat, Preparing an extract of	M. S. Valentine	114, 234

Alphabetical list of patents—Continued.

Invention or discovery.	Name of patentee.	No.
Meat, Preserving and smoking.....	A. Robertson.....	114, 972
Meats, fruits, vegetables, &c., Apparatus and process for canning and preserving.	N. H. Shipley.....	111, 264
Meat-tenderer.....	L. B. Tarbox.....	112, 092
Mechanism for a reed-organ swell.....	M. J. Kerigan.....	122, 257
Medical apparatus, Electro-magnetic.....	A. J. Steele.....	116, 110
Medical compound for purifying the blood.....	P. H. Schmidt.....	120, 333
Medical compound, or apple-ginger.....	D. Nixon.....	113, 512
Medical plasters, Machine for spreading.....	A. J. Schafhirt.....	113, 453
Medicine-case.....	H. M. Smith.....	115, 121
Medicine for cure of hog and chicken cholera.....	M. N. George.....	117, 065
Meeting-rails of sashes, Fastening for.....	N. Thompson.....	113, 467
Melodeon.....	P. Engers.....	113, 994
Melting-pots, Covering for.....	A. C. Lewis.....	113, 312
Men's gaiters.....	E. R. Ware.....	113, 119
Memorandum-book.....	L. N. Swasey.....	116, 884
Mercury from its ores, Extracting.....	A. Patera.....	118, 147
Metal, Apparatus for rolling.....	C. White, W. Lewis, T. Strickland, and S. Caddick.....	114, 892
Metal-coated plate-holder, Non-corrosive.....	J. F. Ryder.....	114, 864
Metal for solder, printers' lead, &c., Machine for pre- paring.	R. Painter.....	113, 550
Metal, glass, &c., Ornamentation of.....	B. G. George.....	113, 753
Metal from ores, Separating.....	S. W. Kirk.....	112, 153
Metallic and alkaline sulphates to separate copper, &c., Separating.	A. Monnier.....	121, 799
Metallic rods, Machine for forming spiral grooves on..	T. T. Prosser.....	116, 213
Metal, Machine for cutting and slotting.....	S. W. Putnam, jr.....	112, 737
Metal, Machine for punching and stamping.....	I. Van Hagen.....	114, 063
Metal, Machine for rolling.....	L. Thomas.....	120, 838
Metal, Machine for shearing.....	W. J. Adams.....	114, 385
Metal, Machine for twisting bars of.....	A. D. Williams.....	119, 486
Metal-planer.....	W. H. Warren.....	116, 243
Metal-planing machine.....	M. Kremser.....	119, 156
Metals, Apparatus for melting and casting under pressure.	H. Bessemer.....	117, 249
Metals, Apparatus for refining.....	A. Millochau.....	112, 831
Metals from a mixture of metallic and alkaline sul- phates, Separating.	A. Monnier.....	121, 798
Metals from ores, Extracting.....	W. P. McConnell.....	114, 175
Metals, Machine for rolling.....	A. Lisman.....	119, 160
Metal stirrups, Machine for bending.....	J. H. De Valin.....	110, 743
Metal, Shears for cutting.....	G. M. Marshall.....	122, 270
Metal tubes and columns, Manufacture of.....	F. H. Smith.....	112, 084
Metal-tube skelps, Machine for bending.....	S. P. M. Tasker.....	111, 017
Metal-tube skelps, Machine for slitting and bending ..	S. P. M. Tasker.....	111, 016
Metal-tube skelps, Machine for slitting, beveling, and bending.	S. P. M. Tasker.....	111, 014
Metal-tube skelps, Machine for slitting, beveling, and bending.	S. P. M. Tasker.....	111, 015
Meter.....	C. Moore.....	111, 134
Meter.....	A. D. Laws.....	112, 722
Meter.....	F. Wagner.....	112, 992
Meter.....	T. Cook and J. Watson.....	114, 267
Meter.....	W. Ball.....	117, 366
Meter.....	D. P. Davis.....	113, 112
Meter.....	B. Fogerty.....	121, 937
Meter, Fluid.....	L. F. Buschmann.....	111, 040
Meter, Fluid.....	R. Crewzbaur.....	111, 179
Meter, Fluid.....	C. Moore.....	111, 233
Meter, Fluid.....	H. B. Hebert.....	117, 628
Meter, Fluid.....	D. B. Spooner.....	113, 755
Meter, gas, Dry.....	A. W. Almquist and F. W. Ofeldt.....	115, 557
Meter, Liquid.....	W. G. Stuart.....	110, 877
Meter, Liquid.....	C. Moore.....	111, 234
Meter, Liquid.....	H. C. Sergeant.....	111, 262
Meter, Liquid.....	W. E. Suediker.....	111, 268
Meter, Liquid.....	W. G. Stuart.....	112, 091
Meter, Liquid.....	A. Büttner.....	113, 017
Meter, Liquid.....	T. Cook.....	114, 411
Meter, Liquid.....	J. F. de Navarro and H. C. Sergeant.....	114, 420
Meter, Liquid.....	H. C. Sergeant.....	114, 480
Meter, Liquid.....	H. B. Nickerson.....	116, 859
Meter, Liquid.....	J. Mead.....	117, 094
Meter, Liquid.....	D. Williamson.....	117, 229
Meter, Liquid.....	H. W. Mather.....	113, 867
Meter, Liquid.....	H. Chaudler.....	119, 076
Meter, Liquid.....	N. Finck.....	119, 699
Meter, Liquid.....	D. B. Spooner.....	121, 211
Meter, Liquid.....	D. W. Huntington and W. Hempstead.....	122, 174
Meter, Liquid.....	J. W. Cremin.....	122, 231
Meter, Liquid and gas.....	D. B. Spooner.....	113, 591

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Meters and motors, fluid, Piston-rod for	A. K. Rider	118, 392
Meter, Water	F. G. Hesse	111, 060
Meter, Water	W. Park	111, 143
Meter, Water	T. B. Fogarty	111, 624
Meter, Water	R. C. Gray and W. B. Brittingham	111, 833
Meter, Water	T. C. Hargrave	113, 162
Meter, Water	I. P. Tice	113, 366
Meter, Water	W. Van Anden	113, 597
Meter, Water	J. W. Cremin	114, 415
Meter, Water	J. P. Lindsay	114, 694
Meter, Water	A. M. de Souchet	115, 940
Meter, Water	J. W. Cremin	115, 937
Meter, Water	J. C. Slaughter	116, 362
Meter, Water	G. D. Emerson	116, 576
Meter, Water	J. S. Barden	117, 035
Meter, Water	J. Broughton	117, 975
Meter, Water	H. M. Bartlett	119, 003
Meter, Water	H. M. Bartlett	119, 004
Meter, Water	D. L. Tower	119, 671
Meter, Water	H. J. Hyams	119, 709
Meter, Water	A. O. Leary	119, 714
Meter, Water	C. Campeaux	120, 853
Meter, Water, with stop-cock connections	J. F. de Navarro	114, 419
Middlings-separator	J. B. Brennan and W. Tucker	120, 706
Mildew in canvas, Preventing	T. Bathy	121, 038
Military equipments	W. H. Penrose	119, 400
Milk, Apparatus for cooling	J. R. McKay	113, 438
Milk, Apparatus for preserving	E. Rönning	111, 476
Milk-can handle	J. W. Hannan	121, 168
Milk-can, Ventilating	L. B. Arnold	112, 674
Milk-house	H. Perego	110, 784
Milk-house	J. A. Price	120, 534
Milk-safe	E. F. Sevy	120, 111
Mill and press, cider, Combined	D. H. Krauser	113, 778
Mill, Bark	G. E. Palen and F. P. Avery	111, 239
Mill, Bark	F. Stamm	111, 397
Mill, Bark	J. Helmbrook	111, 744
Mill, Bark	O. Coogan	120, 246
Mill-bolt	B. C. White	120, 137
Mill-bush	H. F. Frisbie	110, 843
Mill, Cider	J. Bowen and A. T. Foster	113, 732
Mill, Cider	G. Seger	115, 112
Mill, Cider	W. Barr	116, 798
Mill, Cider	H. Lightner	117, 898
Mill, Cider	N. A. Patterson	119, 472
Mill, Cider and wine	W. B. Farrar	113, 283
Mill, Coffee	F. Raymond	111, 778
Mill, Coffee	A. Lepage	120, 287
Mill, Fan	A. Plymate	119, 174
Mill, Fanning	H. Ogborn	111, 375
Mill, Fanning	B. Barney	112, 407
Mill, Fanning	R. Gibson	112, 584
Mill, Fanning	G. E. Clarke	112, 687
Mill, Fanning	L. M. Crosby	114, 416
Mill, Fanning	P. Young	114, 898
Mill, Fanning	H. H. Seeley	114, 977
Mill, Fanning	F. E. Bowen	117, 374
Mill, Fanning	J. Goetz	117, 715
Mill, Fanning	F. Eves	119, 340
Mill, Fanning	D. Collins	121, 085
Mill, Fanning	C. A. Hutchins	120, 745
Mill, Feed	Z. S. Caracraft	120, 562
Mill, Feed	J. W. Myers	122, 129
Mill-feed, Adjustable	W. T. Duvall	112, 909
Mill for grinding coffee, spices, &c	J. Garfield	117, 879
Mill for ores, Grinding	J. S. Niswander	113, 085
Mill, Grain	E. A. Austin	118, 672
Mill, Grinding	I. and W. D. Mayfield	110, 927
Mill, Grinding	G. Selsor	112, 080
Mill, Grinding	E. D. and E. C. Little	113, 179
Mill, Grinding	F. H. La Port	113, 534
Mill, Grinding	H. Hensley	114, 558
Mill, Grinding	A. H. Nordyke and D. W. Marmon	117, 677
Mill, Grinding	A. H. Nordyke and D. W. Marmon	117, 668
Mill, Grinding	W. H. Culver	119, 746
Mill, Grinding	J. B. Smith	121, 819
Mill, Grist	A. H. Wagner	115, 791
Mill, Grist	C. Kaestner	116, 717
Mill, Grist	E. C. L. Kunnenecke	118, 136
Mill, Hominy	T. Hudnut	122, 172
Milling heads of governor-valves, Machine for	W. A. Cogswell	118, 200

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Milling-machine	W. Hawkins	120, 433
Milling-machine	W. A. N. Long	118, 732
Mill, Paint	W. R. Axe	116, 662
Mill-pick	J. Cummings	116, 817
Mill-pick	A. Rasner	120, 536
Mill-pick holder	J. P. Sinclair	118, 753
Mill, Quartz	D. D. Mallory	112, 059
Mill, Rolling	A. Johnson	112, 924
Mill, Rolling	W. H. Brough	119, 693
Mill, Saw	E. Andrews	112, 883
Mill, Saw	W. D. Smith and A. J. Chase	113, 217
Mill, Saw	G. Finnegan	113, 412
Mill, Saw	W. M. Ferry	113, 865
Mill, Saw	W. M. Ferry	113, 866
Mill, Saw	J. Richards	114, 043
Mill, Saw	M. J. and T. N. Egery	114, 426
Mill, Saw	S. Kemper	114, 568
Mill, Saw	C. E. Lewis	114, 833
Mill, Saw	E. H. Stearns	115, 903
Mill, Saw	S. W. Harris	116, 181
Mill, Saw	F. Layaux	116, 453
Mill, Saw	A. M. Dexter	116, 569
Mill, Saw	D. A. Eadie	122, 002
Mills, Coupling for shafts for	W. Kean	111, 550
Mill, Smut	D. Pease	118, 048
Mill-spindle step	G. S. Young	110, 814
Mill-saw, Head-block for	W. A. Greenleaf	118, 801
Mill-stamp	J. M. Crawford	115, 172
Millstone	J. W. Masury	111, 956
Millstone-bail and driver	A. G. Waldo	111, 704
Millstone-balance	J. A. Althouse	114, 249
Millstone-balance	G. T. Clark	114, 890
Millstone-balance	Z. Dawson	118, 113
Millstone-balances	J. Walsh	111, 282
Millstone-bush	J. Brown	118, 101
Millstone condenser and ventilator	D. Hefner	114, 678
Millstone-curb	G. W. Eggleston	117, 160
Millstone-dress	J. Wilson	114, 896
Millstone-dress	D. N. M. Perego	114, 967
Millstone-dress	M. Fries	119, 134
Millstone-dresser	H. Dolmech	120, 505
Millstone dressing-guide	J. North	114, 326
Millstone-driver	J. J. Tomlinson	111, 277
Millstone-elevator	J. B. Hall	115, 844
Millstone-exhaust	J. Lingenfelter	113, 676
Millstone-exhaust	J. Lingenfelter	115, 747
Millstone-feeder and grain-scourer	P. H. Massey	111, 760
Millstone-pick	H. J. Brunner	111, 810
Millstones, Feed-apparatus for	A. Dewey	117, 267
Millstones, Machine for dressing	J. Norman	113, 914
Millstones, Machine for dressing	S. East	114, 425
Millstones, Machine for dressing	J. T. Gilmore and J. S. Crane	115, 600
Millstones, Machine for dressing	J. I. Yount	119, 551
Millstones, Machine for dressing	S. A. Bell	120, 181
Mill, Turning and boring	G. A. Gray, jr.	113, 651
Miners' squib	J. Holmes	121, 783
Mining-sluice and riffle	C. J. Garland	119, 978
Mirror, Adjustable	G. S. Roberts	115, 898
Mirror, Back-reflecting	R. Mason	112, 474
Mirror-reflector	H. S. Wood and J. W. Morrison	114, 243
Mirrors and picture-frames, Support for	D. Hartmann	116, 589
Mirrors, Device for adjusting	O. L. and W. Gardner	113, 868
Mirrors, Ornamental	W. M. Davis	111, 731
Miter-box	H. Markle	115, 752
Miter-box	G. E. Hedges	117, 538
Miter-box	M. O. Royce	118, 748
Miter-machine	T. E. King	112, 355
Mold	T. J. Barron	114, 905
Mold	D. M. Spragle	117, 343
Mold and press, Cigar	J. Ryan	119, 653
Mold-board for plows	G. Peacock	118, 551
Mold-board, Plow	L. P. Rider	114, 044
Mold, Brick	R. Stuckwisch	119, 667
Mold, Brick	G. Carnell	121, 449
Mold, Butter	A. J. Derrick	121, 496
Mold, Car-wheel	W. E. Worth	110, 717
Mold, Cement-pipe	D. Copeland, jr.	115, 029
Mold, Cigar	N. H. Borgfeldt	110, 732
Mold, Cigar	N. Dubrul	114, 655
Mold, Cigar	N. Dubrul	114, 932
Mold, Cigar	J. Prentice	115, 101

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Mold, Cigar.....	J. J. Lahaye and J. M. Lyons.....	122, 034
Mold, Confectioners'.....	H. S. Howe.....	112, 710
Molded saddle-tree and composition for the same.....	E. B. Newman.....	113, 196
Mold, Electrotype.....	S. P. Knight.....	114, 447
Molders' flask.....	E. F. Jones.....	115, 214
Molders' flask.....	A. Merriman.....	115, 973
Molders' slicker.....	W. J. Fryer, jr.....	115, 049
Mold for casting.....	N. Thompson.....	121, 736
Mold for casting car-wheels.....	N. Washburn.....	116, 246
Mold for composition articles.....	I. Smith.....	117, 119
Mold for finger-rings.....	G. W. Tinsley and E. W. Storer.....	118, 169
Mold for glass lamps.....	H. Dillaway.....	117, 157
Mold for making cushioned belting.....	S. W. Tyler.....	114, 371
Mold for saddle-trees.....	J. Straus.....	114, 488
Mold for sewer-pipe.....	T. Madeley.....	114, 164
Mold for sewer-pipes.....	W. H. Story.....	122, 076
Mold for shaping cigar-bunches.....	A. Pearl.....	117, 200
Mold for suppositories.....	J. A. Robbins.....	112, 634
Mold, Glass.....	C. Stadelmann.....	115, 377
Mold, Glass-blowers'.....	S. R. Bowie.....	112, 772
Molding cigar.....	J. Charter.....	116, 930
Molding-machine.....	J. H. Culver.....	112, 691
Molding-machine.....	J. Albright.....	114, 900
Molding-machine.....	C. Schilling.....	116, 503
Molding-machine.....	I. L. Lamb.....	117, 083
Molding-machine.....	J. Demarest.....	117, 266
Molding-machine.....	J. A. Woodbury.....	117, 586
Molding-pipe.....	W. D. Alford.....	119, 259
Molding-plane.....	E. H. Morris.....	112, 949
Molding plastic materials, Electrotype die or mold for.....	D. Scrymgeour.....	111, 688
Molding, pressing, and cutting sugar, Machine for.....	P. Spreckels and J. Peterson.....	116, 235
Moldings, Machine for enameling.....	T. Moore.....	120, 659
Moldings, Machine for enameling.....	J. Johnson.....	121, 628
Moldings, Machine for smoothing.....	J. S. Loomis.....	118, 466
Moldings, Machine for the manufacture of.....	J. C. Cooke and H. A. Whiteley.....	111, 817
Moldings of paper, Constructing.....	W. W. Webster.....	110, 704
Moldings, spiral, Machine for turning.....	E. A. Stockton.....	117, 477
Mold, Melon-shaped.....	C. Hodgetts.....	119, 146
Molds, Brick and other.....	H. Martin.....	113, 540
Molds for electrotyping purposes, Process for obtaining.....	W. A. Leggo.....	115, 490
Molds, glass, Machine for operating.....	W. C. King.....	114, 569
Mold, Stereotype.....	L. Guex.....	116, 304
Monument.....	F. M. Jones.....	121, 380
Mop.....	M. W. Kirkwood and S. R. Riley.....	113, 777
Mop.....	F. F. Rooney.....	115, 899
Mop and brush-holder.....	D. Edward.....	116, 574
Mop, Crockery and lamp-chimney.....	C. S. Moore and H. P. Boyd.....	121, 955
Mop-head.....	J. Davis.....	112, 556
Mop-head.....	J. Messinger.....	112, 615
Mop-head.....	S. Seldon and M. Griswold, jr.....	113, 457
Mop-head.....	J. Brizee.....	115, 815
Mop-head.....	B. French.....	116, 174
Mop-head.....	J. Todd.....	116, 512
Mop-head.....	L. W. Taylor.....	117, 943
Mop-heads.....	H. H. Wetmore.....	111, 161
Mop-holder.....	J. Brizee.....	112, 014
Mortar-machine.....	S. H. Kinsdell.....	117, 540
Mortar-mixing machine.....	A. C. Ellithorpe.....	116, 172
Mortars, cement, &c., Preparation of.....	H. Y. Scott.....	120, 672
Mortises, Machine for laying out.....	J. M. Rodkey.....	117, 334
Mortising-machine.....	J. W. Fowle.....	111, 834
Mortising-machine.....	W. Downing and W. H. Soley.....	112, 228
Mortising-machine.....	H. Bickford.....	119, 007
Mortising-machine.....	D. L. Gibbs.....	120, 737
Mortising-machine.....	E. Myers and S. R. Smith.....	120, 993
Mortising-machine.....	E. J. Rowe.....	121, 551
Mosquito-bar.....	R. F. S. Heath.....	114, 556
Mosquito-canopy holder.....	L. M. Bates.....	117, 370
Mosquito-net.....	J. J. A. Ergenzinger.....	112, 023
Motion, Apparatus for converting.....	L. S. Fithian.....	115, 589
Motion, Apparatus for converting.....	J. J. Chenal.....	120, 622
Motion, Apparatus for transmitting.....	E. H. Bancroft.....	117, 503
Motion, Apparatus for transmitting.....	S. M. Rembert.....	118, 554
Motion, Device for arresting.....	J. Everding.....	120, 730
Motion, Device for converting reciprocating into rotary.....	G. L. Gavett.....	121, 354
Motion, Device for transmitting.....	P. Palmhund.....	116, 745
Motion, Transmitting.....	H. F. Wheeler.....	119, 437
Motive-power apparatus.....	C. A. Mills.....	110, 667
Motive-power apparatus.....	J. T. Gilbert.....	113, 417
Motive-power, Means for transmitting.....	J. Richmond.....	116, 221

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Motive-power, Mode of applying.....	J. Schley.....	114, 866
Motive-powers, Process of obtaining.....	R. M. Marchant.....	115, 877
Motor.....	P. Guzman.....	120, 379
Motor, Electro-magnetic.....	H. M. Paine.....	112, 841
Motor, Electro-magnetic.....	M. H. Utley and A. Ross.....	119, 899
Motor for sewing-machines.....	G. W. Manson.....	121, 638
Motor for tremolos of musical instruments.....	J. H. Lomas.....	121, 390
Motor, Hydraulic.....	V. Kromer.....	115, 869
Motor, Hydraulic.....	A. Barbarin and J. Albrecht.....	117, 504
Motor, Hydraulic.....	A. Barbarin and J. Albrecht.....	117, 505
Motor, Hydraulic.....	J. H. Jennings.....	120, 975
Motor, Hydro-pneumatic.....	C. L. Stevens.....	120, 545
Motor, Machine.....	I. G. Hubbard.....	115, 058
Motor, Pneumatic.....	T. B. Jeffery.....	121, 626
Moth-protector.....	F. F. Voight.....	119, 481
Movement-cure apparatus.....	D. Wark.....	117, 580
Movement, Mechanical.....	J. Woolf.....	111, 503
Movement, Mechanical.....	E. G. Russell.....	112, 498
Movement, Mechanical.....	W. A. Fenn.....	112, 699
Movement, Mechanical.....	A. Nimmo.....	113, 687
Movement, Mechanical.....	J. Corley.....	114, 111
Movement, Mechanical.....	J. and W. F. Barnes.....	114, 514
Movement, Mechanical.....	A. Shear.....	114, 870
Movement, Mechanical.....	J. Woolf.....	115, 406
Movement, Mechanical.....	J. H. McCamey.....	116, 617
Movement, Mechanical.....	C. W. Hurd.....	118, 016
Movement, Mechanical.....	E. E. Youngs.....	118, 572
Movement, Mechanical.....	J. J. Kimball.....	118, 723
Movement, Mechanical.....	J. H. Cooper.....	119, 576
Movement, Mechanical.....	D. E. Keating.....	119, 617
Movement, Mechanical.....	W. W. Weaver.....	119, 674
Movement, Mechanical.....	A. Benneckendorf.....	119, 735
Movement, Mechanical.....	A. Clark.....	119, 821
Movement, Mechanical.....	W. F. Jones.....	120, 883
Movement, Mechanical.....	P. Ferguson and F. G. Bates.....	120, 955
Movement, Mechanical.....	T. H. Percival.....	121, 893
Mower, Lawn.....	A. Ingram.....	112, 146
Mower, Lawn.....	B. and D. Harnish.....	112, 338
Mower, Lawn.....	E. G. Passmore.....	113, 336
Mower, Lawn.....	A. W. C. Williams.....	114, 501
Mower, Lawn.....	A. M. Hills.....	116, 188
Mower, Lawn.....	H. R. Gard.....	116, 295
Mower, Lawn.....	W. Allen.....	116, 791
Mower, Lawn.....	J. S. Oakley and O. D. Wood.....	120, 994
Mower, Lawn.....	D. H. Chamberlain.....	121, 705
Mowers, &c., Machines for grinding the cutters of.....	H. C. Fisk.....	112, 330
Mowing-machine.....	Zuriel Swope.....	110, 799
Mowing-machine.....	G. T. Savary.....	111, 258
Mowing-machine.....	H. C. and D. C. Markham.....	112, 365
Mowing-machine.....	S. Fuller.....	112, 579
Mowing-machine.....	A. Bolander.....	112, 892
Mowing-machine.....	S. Johnston.....	116, 315
Mowing-machine.....	L. S. Clark.....	117, 864
Mowing-machine.....	M. R. Shalters and S. Ray.....	118, 284
Mowing-machine.....	J. C. Baker.....	118, 673
Mowing-machines, Track-cleaner for.....	B. F. Power.....	111, 083
Mowing-machines, Track-cleaner for.....	J. Timms.....	121, 300
Muff-tassel.....	S. Brody.....	120, 487
Mule, &c., Spinning.....	P. W. Greenwood.....	114, 288
Mule for spinning, Self-acting.....	C. B. Parkinson, A. & J. Metcalf, and W. H. Heald.....	113, 445
Mule for spinning, Self-acting.....	J. Sutherland.....	113, 814
Mule for spinning, Self-acting.....	J. Dodd.....	114, 274
Mule for spinning, Self-acting.....	E. Wright.....	117, 231
Mule for spinning, Self-acting.....	P. McGovern.....	118, 808
Musical instruments, Sounding-board for.....	J. H. Schucht.....	122, 196
Musical notation.....	F. W. Acee.....	122, 096
Musical transposing-board.....	J. M. Bruner.....	115, 428
Music, Apparatus for turning the leaves of.....	C. Heyer.....	118, 935
Music, Apparatus for turning the leaves of.....	A. Altenburg and G. J. Lambrix.....	119, 810
Music-leaf holder.....	A. Extein and J. C. Mills.....	116, 577
Music-leaf turner.....	A. W. Bush and M. McComb.....	117, 511
Music-leaf turner.....	G. C. A. Class.....	120, 038
Music, Notator for.....	S. R. Brooks.....	115, 930
Music-stand.....	W. C. James.....	120, 880
Music-stool and book-rack combined.....	J. R. Lomas.....	115, 332
Music-stool, stand, and work-table, Adjustable.....	G. W. Griswold.....	120, 872
N.		
Nail and tack machine.....	D. J. Farmer.....	118, 357
Nail and tack plate-feeder.....	D. J. Farmer.....	113, 644

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Nail for securing weather-tiling and siding.....	W. E. Worthen.....	121, 305
Nail-machine.....	H. Reese.....	112, 280
Nail-machine.....	A. W. Paull and J. Morgan, jr.....	116, 747
Nail-machine.....	H. Reese.....	118, 744
Nail-machine, Feeder for.....	H. B. Lauders.....	113, 310
Nail-machine, Toggle-pin for.....	W. H. Ridley.....	114, 857
Nail-plate feeder.....	J. Ferguson and J. Turner.....	118, 224
Nail-plate feeding-machine.....	J. C. Gould.....	119, 228
Nail-plate feeding-machine.....	J. C. Gould.....	120, 190
Nail-plate rolling.....	J. Dudley and F. Lindemann.....	113, 029
Nail-plates and sheet-strips, Process of manufacturing.....	J. Frowen, E. Hemmings, and J. Sheldon.....	116, 046
Nails for horseshoes, Manufacture of.....	A. H. Caryl.....	117, 148
Nails, Machine for distributing.....	A. Knowlton.....	118, 250
Name-plate for organ-stops.....	C. E. Bacon and W. J. Kent.....	115, 146
Naphtha and other hydrocarbon liquids, Distilling.....	H. H. Rogers.....	120, 539
Naphtha, Apparatus for storing and discharging.....	T. Forstall.....	116, 423
Napkins, Device for attaching to the person.....	P. H. Ralford.....	115, 238
Neck-chain.....	G. D. Stevens.....	118, 294
Neck-tie.....	J. R. Wilber and O. W. Peirce.....	113, 957
Neck-tie.....	A. Hoffstadt.....	120, 437
Neck-tie fastener.....	E. Side.....	120, 600
Neck-tie holder.....	H. P. Thayer.....	119, 197
Neck-tie retainer.....	E. B. Gibbnd.....	112, 237
Neck-tie retainer.....	C. P. Lawton.....	113, 780
Neck-tie retainer.....	J. McGee.....	117, 189
Neck-tie retainer.....	H. Laurence.....	120, 077
Neck-ties, Fastening for.....	A. Komp.....	113, 177
Neck-yokes to poles, Device for fastening.....	T. H. Russell.....	118, 157
Needle and fastener, Button.....	J. A. Ostburg.....	116, 087
Needle and tool holder for work-tables.....	H. H. Westcott.....	117, 354
Needle, Broom.....	C. M. Cowardin.....	119, 745
Needle electrode for electro-surgical uses.....	J. Kidder.....	122, 031
Needle for sewing-machines.....	E. Strain.....	112, 980
Needle for sewing-machines.....	J. B. Blanchard.....	113, 010
Needle setter and threader.....	C. F. Martine.....	113, 542
Needle-setter, needle-sharpener, needle-case, and ripper.....	E. E. Hendrick.....	114, 815
Needle-sharpener.....	T. Harris.....	121, 940
Needles, Machine for polishing.....	F. W. Mallett.....	119, 525
Needles, Machine for scouring.....	F. W. Mallett.....	113, 182
Needles, Papering or putting up.....	D. Evans.....	121, 860
Needles, Paper wrapper for.....	M. E. Baylis.....	117, 967
Needles, split, Manufacture of.....	C. H. Palmer.....	119, 876
Needle-threader and spool combined.....	G. P. Farmer.....	122, 241
Needle-wrapper.....	C. Schleicher.....	115, 529
Needle-wrapper.....	J. Pitzler.....	117, 323
Needle-wrapper.....	J. Pitzler.....	117, 324
Net, Fishing.....	L. H. Alexander.....	117, 957
Net, Fly.....	W. Sohler.....	115, 374
Newspaper-addressing machine.....	P. O'Connor.....	114, 032
Nickel, Electro-plating with.....	I. Adams, jr.....	113, 612
Nickel-plating.....	M. G. Farmer.....	116, 579
Nickel-plating.....	J. Adams, jr.....	116, 658
Nickel-plating.....	N. S. Keith.....	121, 383
Night-latch.....	C. C. Dickermann.....	111, 732
Night-signal, Pyrotechnic.....	M. J. Coston.....	115, 935
Nipple-shield.....	S. C. Foster.....	114, 281
Nitro-glycerine, Manufacture of.....	E. A. L. Roberts.....	112, 848
Nitro-glycerine, Manufacture of.....	E. A. L. Roberts.....	112, 849
Nitro-glycerine, Manufacture of.....	E. A. L. Roberts.....	112, 898
Nitrous-oxide and other gases, Apparatus for liquefying.....	W. F. and W. A. Johnston.....	120, 977
Nitrous-oxide and other gases, Method of compressing and liquefying.....	W. F. and W. A. Johnston.....	120, 978
Nozzle.....	T. Watson.....	121, 265
Nozzle and cap for oil-cans.....	J. A. Bostwick.....	120, 702
Nozzle for liquid-packages.....	H. H. Rogers.....	118, 154
Nozzle for oil-cans.....	J. A. Bostwick.....	113, 137
Nozzle for oil-cans.....	S. P. Doane.....	119, 081
Nozzle, Hydraulic.....	H. Shaw.....	112, 969
Nozzle-stopper for oil-cans.....	J. H. Noyes.....	114, 467
Nubia.....	T. Dolan.....	117, 158
Numbering and paying machine.....	A. C. Sine.....	112, 292
Numbering-machine.....	C. L. Sholes.....	118, 978
Nursing-bottle.....	L. P. Dodge.....	120, 575
Nut-blank, Pressed.....	F. Washbourne.....	111, 996
Nut-blanks, Rolled bar for.....	H. W. Oliver, jr.....	111, 772
Nut-lock.....	L. Fay.....	112, 574
Nut-lock.....	P. F. Randolph.....	114, 474
Nut-lock.....	S. I. Thompson.....	114, 991
Nut-lock.....	W. H. Phipps.....	115, 889
Nut-lock.....	J. M. Connell.....	117, 517

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Nut-locking device.....	J. L. Estill.....	121, 348
Nut-locking device.....	H. L. Purdie.....	121, 546
Nut-locking device.....	H. L. Purdie.....	121, 547
Nut-locking device.....	H. L. Purdie.....	121, 548
Nut-locking device.....	H. L. Purdie.....	121, 549
Nut-machine.....	G. H. Fuller.....	114, 664
Nut-machine.....	P. Koch.....	114, 691
Nutmeg-grater.....	D. C. Warner.....	111, 284
Nuts, Device for locking.....	A. McKenney.....	118, 256
Nuts, Machine for rolling hollow bars for.....	J. Ostrander.....	113, 332
Nuts, Machine for tapping.....	J. L. Gill, jr.....	113, 512
Nuts, Machine for tapping.....	J. M. Durrell.....	115, 451
O.		
Oakum, Machine for baling.....	S. G. Archibald.....	113, 831
Oar.....	N. Davenport.....	115, 584
Odometer.....	D. L. Branning.....	112, 116
Offal and other animal substances, Rendering and treating.....	D. Bruce.....	110, 627
Oil and naphtha from paraffine, wax, &c., Process of separating.....	R. B. and W. W. Lucas.....	115, 622
Oil and other liquids, Vessel for.....	G. W. Banker.....	116, 393
Oil, Apparatus and process for distilling.....	W. G. Warden.....	110, 806
Oil-cake trimmer.....	A. Judson.....	115, 739
Oil-can, Plumbago.....	D. D. Mackay and C. Butler.....	113, 783
Oil-can holder.....	W. S. Brick.....	112, 537
Oil-cloths and similar fabrics, Drying.....	O. C. Washburn.....	110, 702
Oil-cloths, Metal binding for.....	D. M. Knowles.....	119, 035
Oil-cloth, Marbled.....	T. Carson.....	117, 512
Oil, Converting the residuum of petroleum into.....	C. C. Mengel and A. P. Von Pehrnhoff.....	116, 852
Oil-cup.....	W. Rider.....	118, 276
Oiler.....	A. D. Laws.....	111, 068
Oiler.....	E. McDuff and E. D. Farrow.....	112, 367
Oiler for loose pulleys.....	S. R. Norris.....	113, 199
Oil from bone-dust, Apparatus for extracting.....	W. W. Lucas.....	111, 658
Oil from cotton-waste, Separating.....	A. N. Cole.....	115, 708
Oil from grain and other materials, Apparatus for separating.....	E. S. Hutchinson.....	111, 064
Oil from grain, seeds, &c., Apparatus and process for removing.....	E. S. Hutchinson.....	112, 350
Oil from tanks, Device for discharging.....	W. J. Brundred.....	110, 953
Oil from vegetable and other matters, Apparatus for removing.....	E. S. Hutchinson.....	112, 349
Oil from vegetable and other matter, Apparatus for removing.....	T. Sim.....	112, 389
Oiling-apparatus for crank-pins.....	J. F. Allen.....	121, 744
Oil-paint for coating oil-cloths.....	T. Potter.....	110, 999
Oil-reservoir for axle-boxes.....	E. Von Joensen and J. M. McDonald.....	113, 599
Oils and fats, Purification of, by acids.....	R. C. Loftus.....	113, 782
Oils, Apparatus for distilling and refining.....	A. Feubert.....	118, 602
Oils, essential, Process and apparatus for extracting.....	G. G. Percival.....	120, 596
Oils, hydrocarbon, Refining.....	H. W. C. Tweedle.....	120, 349
Oil, Still for.....	J. Gracie.....	117, 405
Oil, Still for.....	J. Gracie.....	117, 406
Oil-tank.....	G. W. Glass.....	120, 263
Oil-tanks, grain-cars, &c., Discharge-apparatus for.....	W. J. Brundred.....	115, 817
Oil-well drilling.....	J. R. Hill.....	112, 596
Oil-wells, Apparatus for steaming.....	W. Nevins.....	112, 069
Oil-wells, Crevice-searcher and cleaner for.....	W. Forker.....	115, 047
Oil-wells, Preventing the clogging of.....	E. A. L. Roberts.....	119, 883
Oil-wells, Process of preventing the clogging of.....	E. A. L. Roberts.....	119, 884
Oil-wells, Process of removing obstructions in.....	J. Dickey.....	120, 186
Oil-well tubings, Attachment to.....	W. W. Dewey.....	113, 638
Operating cutter for steam-plows.....	O. Hyde.....	111, 212
Ordnance.....	B. Britten.....	116, 408
Ordnance, Apparatus for discharging.....	H. Arden.....	120, 179
Ordnance, Breech-loading.....	J. Whitworth.....	120, 842
Ordnance, Mounting and working.....	A. Monerief.....	115, 502
Ordnance, Operating.....	J. B. Eads.....	112, 230
Ordnance, Projectile for.....	J. G. Butler.....	112, 121
Ordnance, Projectile for.....	B. Hotchkiss.....	112, 144
Ordnance, Recoil-obviator for.....	S. F. Hawley.....	118, 933
Ordnance, Repeating.....	A. H. Townsend.....	115, 659
Ordnance, Repeating.....	J. P. Taylor.....	116, 775
Ordnance, Submarine.....	D. Fitzgerald.....	121, 455
Ore-concentrator.....	W. C. Stiles.....	114, 486
Ore-crusher and amalgamator, Combined.....	L. Griswold.....	112, 804
Ore-crushing machine.....	S. Hughes.....	120, 972
Ores and other materials, Apparatus for separating and concentrating.....	J. Jenkins.....	115, 737
Ores, Apparatus for dressing.....	C. F. Collom.....	118, 437

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Ores, Apparatus for amalgamating.....	J. Tunbridge.....	121, 827
Ores, Process and apparatus for the production of cast steel from.	C. W. Siemens.....	113, 584
Ores by means of fuel, chemicals, and fluxes, Treatment of.	J. D. Whelpley.....	116, 903
Ores, Desulphurizing and treating.....	J. W. Bailey.....	117, 363
Ore-separator.....	W. Hooper.....	112, 918
Ore-separator.....	W. Hooper.....	112, 919
Ores, gold and silver, Process of amalgamating.....	P. T. G. Stockman.....	121, 554
Ores, Machine for separating and treating.....	S. R. Krom.....	121, 526
Ores, Roasting and treating.....	J. W. Bailey.....	120, 695
Organ.....	G. W. Woodruff.....	117, 587
Organ.....	R. Burdett and B. O. Church.....	117, 859
Organ and melodeon valves, Machine for clothing.....	C. D. Goodman.....	119, 458
Organ, Cabinet.....	G. Woods.....	115, 671
Organ, Parlor.....	J. Cordley.....	110, 900
Organs and melodeons, Tremolo for.....	J. R. Lomas.....	117, 550
Organs, Blowing-apparatus for.....	J. F. Barker.....	121, 269
Ornamental articles in wood in imitation of carving, Manufacture of.	G. W. Ley.....	118, 464
Ornamenting and lettering hard and uneven surfaces..	W. H. McElcheran.....	120, 656
Ornamenting the surface of metal by electro-deposition from solutions.	R. O'Neil.....	113, 331
Oven.....	D. McKenzie.....	115, 626
Oven.....	I. H. Shaver.....	116, 762
Oven.....	A. Wilson.....	119, 680
Oven, Bakers'.....	A. Martin.....	111, 759
Oven, Bakers'.....	R. Sanderson.....	120, 901
Oven, Bakers'.....	G. E. Bailey.....	121, 573
Oven, Baking.....	A. A. and J. A. Aull.....	121, 839
Oven, Coke.....	T. G. Meier.....	119, 092
Oven-grate, Stove.....	W. G. James.....	111, 850
Oven, Lime.....	A. Califf.....	114, 104
Oven, Portable.....	W. S. Robinson.....	117, 464
Ovens, Tempering.....	A. Cary.....	116, 267
Oven, Stove-pipe.....	R. D. Wilcox.....	117, 710
Overshoe.....	P. L. Whitman.....	118, 568
Overshoe.....	A. O. Bourn.....	121, 446
Overshoe, Spur-attachment to.....	H. Schwandt.....	111, 880
Ox-bow pin.....	I. Glover.....	117, 618
Oyster-can, Refrigerating.....	A. Booth.....	111, 722
Oyster-dredge.....	W. C. Baker.....	121, 227
Oyster-dredge.....	E. B. Lake.....	121, 249
Oysters, Device for opening.....	M. C. Boyer.....	112, 895
Oyster-shucker.....	G. Holtzmann.....	115, 474
Ozone, Generating.....	P. A. Boyce.....	118, 976
P.		
Package for butter and lard.....	J. L. Cone.....	116, 684
Package for hydrocarbon and other liquids.....	M. W. Brown.....	113, 394
Package for oysters, clams, &c.....	M. W. Brown.....	113, 395
Packages, Clamp for holding.....	D. Dick.....	114, 651
Packing-box.....	A. Gregg.....	115, 306
Packing-boxes.....	J. H. Foster.....	117, 061
Packing-box, Paper.....	J. W. Tuttle.....	117, 350
Packing-box, Pasteboard.....	J. W. Tuttle.....	117, 349
Packing for doors and windows.....	S. S. Troock.....	117, 939
Packing for journals, bearings, &c., Fibrous mineral..	C. A. Stevens.....	112, 648
Packing for machinery, and lining for journal-boxes and bearing-surfaces.	C. A. Stevens and C. Butler.....	118, 295
Packing for oil-wells.....	H. S. Cate.....	117, 980
Packing for pistons, cylinders, valves, &c.....	J. Schenck.....	118, 394
Packing for steam-engines, gas-pipes, water-pipes, &c.	A. J. Simmons.....	120, 003
Packing for stuffing-boxes, Metallic.....	A. H. Hall and T. Locker.....	115, 463
Packing from asbestos and other fibrous materials, Machinery for forming.	C. A. Stevens.....	112, 651
Packing from asbestos and other fibrous minerals.....	C. A. Stevens.....	112, 647
Packing or bearing for journals, &c.....	E. D. Murfey.....	121, 806
Packing pistons of steam-engines.....	J. C. Merriam.....	113, 547
Packing, Piston-rod.....	J. H. Blessing.....	112, 770
Packings and bearings, Material for.....	E. D. Murfey.....	121, 805
Packing, Steam.....	A. O. Bourn.....	116, 671
Packing, Steam and hydraulic.....	W. M. Canfield.....	113, 252
Packing, Steam-piston.....	T. Hanson.....	117, 071
Packing-tube for vapor-lamps.....	W. E. Jervey.....	113, 524
Paddle-wheel, Driving.....	J. M. Story.....	115, 380
Pad for horse-collars.....	L. L. Hull.....	112, 713
Pad, Hernial.....	W. Pomeroy.....	118, 483
Pad, Horse-collar.....	J. Fraser.....	112, 797
Padlock.....	J. H. Ames.....	110, 948

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Padlock.....	G. Merkel and C. H. Meyer.....	113, 322
Padlock.....	W. H. Akins and H. E. Abell.....	114, 386
Padlock.....	D. T. Brown.....	116, 544
Padlock.....	O. D. Madge.....	116, 972
Padlock.....	J. H. McWilliams.....	116, 977
Padlock.....	H. Nelson.....	118, 473
Padlock.....	W. Wilcox.....	120, 557
Padlock, Keyless.....	W. Bohannon.....	112, 211
Padlock, Permutation.....	L. H. Gano.....	118, 798
Padlock, Permutation.....	S. Lowe.....	120, 822
Pail, Dinner.....	H. Joyce and A. Ernest.....	113, 893
Pail, Dinner.....	G. Wetzler.....	116, 780
Pail, Measuring.....	J. B. Wightman.....	114, 894
Paint.....	W. N. Jordan.....	114, 017
Paint.....	M. W. Kidder.....	117, 301
Paint.....	B. F. King.....	120, 751
Paint.....	W. J. Byrne.....	121, 330
Paint-brush, Fountain.....	D. J. Kellogg.....	110, 978
Paint-brush, Fountain.....	D. J. Kellogg.....	113, 305
Painters' trestle.....	D. Moritz.....	121, 801
Paint for ships' bottoms.....	I. J. Wyman.....	111, 295
Paint, Marine.....	J. J. Currier and L. Cook.....	122, 110
Paint, Manufacture of.....	D. R. Averill.....	121, 146
Paint, Manufacture of.....	D. R. Averill and J. Browning.....	121, 147
Paints, Manufacture of.....	D. R. Averill.....	121, 478
Paint, varnish, &c., Apparatus for removing.....	T. F. Moody.....	112, 832
Pan, Dust.....	J. B. Morgan.....	119, 042
Pan, Evaporating.....	J. B. Williams.....	116, 524
Paneling-machine.....	D. F. Walker.....	117, 020
Panel-raising machine.....	D. F. Walker.....	120, 405
Pan-lifter.....	W. S. Lawrence and C. I. Collamore.....	116, 330
Pan, Potato-baking.....	A. Jones.....	114, 444
Pantaloons.....	G. R. Eager.....	115, 832
Pantagraph.....	L. F. Bruce and N. J. Wolcott.....	118, 902
Paper leather board, Manufacture of.....	C. B. Hutchins.....	112, 045
Paper and other fabrics, Producing colored prints on.....	M. Laemmell.....	116, 720
Paper and paper-pulp, Manufacture of.....	J. M. Allen.....	118, 177
Paper and paper-pulp, Treatment of.....	T. Taylor.....	114, 850
Paper and vegetable fibrous substances, Treating.....	A. T. Schmidt.....	113, 454
Paper, Apparatus for drying.....	W. H. Soley.....	115, 375
Paper, Apparatus for drying and finishing.....	H. Dodge.....	120, 810
Paper, Apparatus for pasting lining to.....	B. F. Field.....	117, 060
Paper, Apparatus for smoothing and pressing during the manufacture.....	D. Crosby.....	111, 820
Paper-bag machine.....	C. F. Annan.....	111, 802
Paper-bag machine.....	C. F. Annan.....	111, 803
Paper-bag machine.....	P. E. Armstrong.....	112, 005
Paper-bag machine.....	A. Adams.....	114, 743
Paper-bag machine.....	M. E. Knight.....	116, 842
Paper-bag machine.....	J. M. J. P., and S. H. Bryant.....	119, 307
Paper-bag machine.....	B. S. Binney.....	119, 915
Paper-bag machine.....	J. Arkell.....	122, 099
Paper-board, Manufacture of.....	E. A. Seeley.....	114, 868
Paper box.....	P. Beer.....	114, 752
Paper boxes, Finishing.....	S. Wheeler and E. Jerome.....	112, 874
Paper-box machine.....	C. A. Maxfield.....	119, 631
Paper-box machine.....	H. R. Heyl.....	120, 436
Paper-calendering machine.....	S. Moore.....	121, 800
Paper-clip.....	J. M. Crull.....	113, 026
Paper cloth and other materials, Coating and decorating.....	F. Beck.....	110, 727
Paper collar.....	N. Evans, jr.....	112, 571
Paper collar.....	S. S. Gray.....	116, 948
Paper collars, Machine for cutting.....	A. L. Elliot.....	111, 113
Paper collars, Machine for patching, punching, and embossing button-holes of.....	C. Lang.....	112, 155
Paper, Colored.....	G. La Fonte, G. G. Saxe, and C. H. Clayton.....	121, 946
Paper, cordage, twine, &c., Manufacture of.....	J. H. McConnell.....	111, 661
Paper cutting and folding machine.....	C. Chambers, jr.....	113, 256
Paper cutting and folding machine.....	C. Chambers, jr., and W. Mendham.....	113, 257
Paper cutting and scouring machine.....	G. Bates.....	120, 697
Paper-cutting machine.....	J. E. Coffin.....	110, 631
Paper-cutting machine.....	G. Bates.....	111, 423
Paper-cutting machine.....	W. H. Topham.....	111, 702
Paper-cutting machine.....	S. Brown.....	112, 414
Paper-cutting machine.....	C. Paine.....	112, 623
Paper-cutting machine.....	T. C. Robinson.....	114, 350
Paper-cutting machine.....	J. Leviness.....	117, 650
Paper-cutting machine.....	G. A. Walker.....	118, 308
Paper-cutting machine.....	J. Arkell.....	118, 327

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Paper-cutting machine.....	E. Cowles.....	119, 827
Paper-cutting machine.....	F. A. Fletcher.....	121, 239
Paper-driers, Steam regulator for.....	D. Crosby.....	112, 422
Paper-feeder.....	J. A. Graves.....	113, 291
Paper-feeding machine.....	O. Norelius.....	114, 031
Paper-feeding machine.....	E. R. Andrews, R. B. Randall, and W. H. Clange.....	114, 087
Paper-file.....	J. G. Floyd.....	111, 335
Paper-file.....	J. F. Tapley.....	111, 866
Paper-file.....	G. W. Emerson.....	113, 991
Paper-file.....	S. W. Young.....	114, 504
Paper-file.....	G. Rowe.....	117, 688
Paper-file.....	E. H. Thompson.....	118, 757
Paper file.....	C. Chapman.....	119, 917
Paper-file.....	H. J. Asthalter.....	120, 227
Paper-file.....	J. A. Shannon.....	121, 671
Paper-file.....	L. Cohn.....	121, 993
Paper-file, &c.....	A. Baker.....	113, 721
Paper-folding machine.....	J. McAdams.....	112, 264
Paper-folding machine.....	R. R. Gubbins.....	120, 639
Paper-folding machine.....	R. R. Gubbins.....	121, 615
Paper for bank-notes, bonds, &c.....	J. M. Wilcox.....	115, 005
Paper for buildings.....	F. N. Davis.....	117, 155
Paper for napkins and other articles.....	E. Parrish.....	115, 511
Paper for packing.....	A. L. Jones.....	122, 023
Paper for paper collars, Surface-sized.....	W. F. Moseley.....	120, 765
Paper for photographic purposes, Mode of preparing.....	P. H. Murray.....	113, 327
Paper for telegraph purposes, Apparatus for perforating.....	G. Little.....	115, 969
Paper for use in the bottoms of bird-cages.....	J. H. Singer.....	111, 579
Paper-holder, Abrasive.....	G. A. Howe.....	122, 018
Paper-machine deckel.....	C. McBurney and L. Hollingsworth.....	118, 624
Paper, Marbleizing.....	T. Carson.....	112, 544
Paper-polishing machine.....	A. and G. T. Wright.....	110, 947
Paper-pulp.....	P. F. Schliecker.....	116, 759
Paper-pulp, Apparatus for manufacture of.....	M. L. Keene.....	114, 301
Paper-pulp, Beating-engine for preparation of.....	G. Ames.....	118, 092
Paper-pulp, Boiler or digester for making.....	W. F. Ladd.....	115, 327
Paper-pulp engines, Bed-plate for.....	P. Frost.....	116, 045
Paper-pulp, Machine for reducing wood for the manufacture of.....	J. Bridge.....	113, 488
Paper-pulp, Manufacture of.....	H. B. Meech.....	116, 979
Paper-pulp, Manufacture of.....	A. K. Eaton.....	119, 224
Paper-pulp, Manufacture of.....	M. L. Keen.....	119, 464
Paper-pulp, Manufacture of articles from.....	F. Curtis.....	110, 833
Paper-pulp, Manufacture of, from straw.....	C. M. Cresson.....	116, 933
Paper-pulp, Manufacture of, from straw, &c.....	J. A. Rothe.....	121, 130
Paper-pulp, Material for the manufacture of.....	H. V. P. Draper.....	119, 084
Paper-pulp or stock, Manufacture of.....	M. L. Keen.....	119, 465
Paper-pulp, Preparing and bleaching.....	J. Campbell.....	116, 020
Paper-pulp, Process and apparatus for the manufacture of.....	H. B. Meech.....	116, 980
Paper-pulp, &c., Disintegrating vegetable fibers for.....	W. Riddell.....	117, 633
Paper-ruling machine.....	J. Tregurtha.....	114, 886
Papers, Cap and other.....	D. D. Foley and J. J. Johnson.....	120, 152
Paper-stock, &c., Machine for pulping wood for.....	B. F. Barker.....	119, 107
Paper-stock, &c., Treating tarred rope, cordage, and the like for the manufacture of.....	C. F. A. Simonin.....	119, 186
Paper-stock, Apparatus for boiling and treating.....	G. Sinclair.....	110, 873
Paper-stock from wood, &c., Process of obtaining.....	W. Adamson.....	117, 136
Paper-stock, Machine for washing and bleaching.....	H. Munroe.....	116, 338
Paper-stock, Manufacture of.....	W. Adamson.....	117, 134
Paper-trimming machine.....	W. P. Yeoman.....	111, 797
Paper-trimming machine.....	O. L. Starkey and E. W. Poston.....	180, 066
Paper-trimming machine.....	W. G. Ayres and S. L. Cole.....	118, 423
Paper-trimming machine.....	H. L. Todd.....	118, 985
Paper washer.....	E. S. Hanna.....	119, 604
Paper, Wrapping.....	S. Wheeler.....	117, 355
Paper, wrapping, Manufacture of.....	B. E. Hale.....	119, 843
Parasol.....	J. L. Jacquin.....	121, 625
Parer, Fruit.....	R. P. Scott.....	114, 867
Paring and chopping machine.....	S. H. Morse.....	116, 342
Parlor air-pistol.....	B. Haviland and G. P. Gunn.....	113, 766
Parlor-games.....	G. A. Coffin.....	115, 576
Parlor-skate.....	D. Kerr and A. E. Hovey.....	117, 643
Partition, Movable.....	D. J. Williams.....	113, 476
Passenger-recorder.....	G. H. Aldrich.....	114, 084
Passenger-recorder for vehicles.....	J. T. Aldrich.....	115, 801
Pasteboards, Machine for lining.....	J. L. Jaeger.....	111, 849
Paste for paper-hangings.....	J. Jones.....	112, 464
Paste, Toilet.....	J. Young.....	116, 786

Alphabetical list of patents—Continued.

Invention or discovery.	Name of patentee.	No.
Pattern for applying measurements and laying out garments.	S. C. Ewing	112, 024
Pattern for casting grooved rollers.	J. Herald	111, 931
Patterns for flaring vessels, Method of drawing	O. B. Vandenburg	116, 647
Paving and roofing, Composition for	A. B. Vandemark	117, 946
Paving-blocks, Machine for making	S. W. Brooks	120, 237
Paving, Concrete blocks for	J. J. Schillinger	111, 480
Pavement.	W. W. Hubbell	115, 475
Pavement.	I. H. Hobbs	117, 286
Pavement.	H. A. Gunther	120, 268
Pavement.	J. S. Kelly	121, 524
Pavement, Asphalt.	C. Burlew	121, 082
Pavement, Asphaltic	S. R. Scharf	111, 151
Pavement, Asphaltic and crushed rock	A. Van Camp	120, 914
Pavement, Combined concrete and wood	M. Flanigan	115, 457
Pavement, Combined wooden and concrete.	S. C. Prescott	116, 217
Pavement, Composition	A. G. Anderson	115, 924
Pavement, Concrete	J. J. Schillinger	111, 879
Pavement, Concrete.	J. M. Hawes	119, 607
Pavement, Concrete.	R. A. Jackson and S. Gissinger	119, 850
Pavement, Concrete.	G. H. Moore	121, 294
Pavement, Concrete and stone	S. B. Brittan	120, 236
Pavement, Concrete asphaltic.	W. B. Parisen	115, 887
Pavement for streets, &c.	W. R. DeValin	118, 592
Pavement, plastic, Inlaying	G. H. Moore	121, 651
Pavements, &c., Composition for	G. H. Moore	121, 397
Pavements, Composition for.	C. P. Burgess and J. R. Stevenson	111, 724
Pavements, Composition for.	C. B. Harris	112, 339
Pavements, Composition for.	N. B. Abbott	112, 764
Pavements, Composition for.	F. E. Matthews	114, 172
Pavements, Composition for.	L. S. Filbert	120, 956
Pavements, drain-pipes, &c., Asphalt cement for.	E. J. De Smedt	111, 520
Pavements, Machine for driving wedges in.	W. J. Harris	120, 193
Pavement, Street	W. E. Shaw	110, 794
Pavement, Washer.	A. C. Neall	117, 316
Pavement, Wood	W. Bushnell	110, 954
Pavement, Wood	H. M. Beidler	111, 425
Pavement, Wood	W. Bushnell	111, 904
Pavement, Wood	G. A. May	112, 945
Pavement, Wood	P. H. Reinhard and E. F. M. Faetz	113, 929
Pavement, Wood	A. Potts	114, 038
Pavement, Wood	H. E. Paine	114, 190
Pavement, Wood	H. H. Thayer	114, 727
Pavement, Wood	R. H. Willet	114, 895
Pavement, Wood	L. Hill	115, 960
Pavement, Wood	E. McMullen	116, 734
Pavement, Wood	J. Judge	117, 177
Pavement, Wood	W. E. Shaw	117, 212
Pavement, Wood	J. F. Gyles	118, 528
Pavement, Wood	C. P. Burgess	119, 010
Pavement, Wood	S. H. Ingersoll	119, 519
Pavement, Wood	M. Fitzgibbons	119, 836
Pavement, Wood	W. O. Barton	120, 481
Pavement, Wood and concrete	E. A. Roberts	117, 685
Pavement, Wooden	J. Grant	112, 239
Pavement, Wooden	E. Shaw	112, 503
Pavement, Wooden	G. A. Beidler	113, 838
Pavement, Wooden	C. Deutsch	118, 216
Pavement, Wooden	D. H. Mulford	118, 471
Pavement, Wooden	R. C. Phillips	121, 544
Paving, Composition for	H. Saunders	119, 476
Peach-stone extractor	T. E. Johnson	117, 892
Peanut-huller	J. Johnson	113, 889
Peat fuel, Machine and process for manufacturing	T. H. Leavitt	122, 181
Peat fuel, Manufacture of	R. A. Griffin	113, 423
Peat fuel, Manufacture of	D. Aikman	113, 478
Peat-machine	H. Mielsch	112, 830
Peat-machine	Z. Ludington	113, 180
Peat-machine	W. S. Tisdale	119, 801
Pencil	H. T. Cnshman	117, 748
Pencil-case	W. S. Hicks	112, 917
Pencil-case	F. R. Goulding	117, 273
Pencil-case	W. A. Ludden	119, 935
Pencil-cases, Ornamental	E. S. Johnson	121, 627
Pencil-holder	H. J. Wickham	114, 893
Pencil-sharpener	E. P. Needham	112, 951
Pencil-sharpener	S. Darling	116, 276
Pencil-sharpener	S. W. Davis and C. P. Elliott	121, 996
Pencil-sheath	C. E. Abbott and R. S. Merrill	117, 851
Pencil, steatite, Composition	R. Lanstron	117, 084
Pendulum, Compensation	H. B. James	120, 385

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Pendulum rod, Clock	R. W. Norton	111, 672
Peg-sharpener	A. Kehl	117, 081
Peg-wood	W. N. Linnell	117, 436
Pen	M. Wagner	116, 242
Pen and pencil case	J. M. Clark	114, 110
Pen and pencil case	J. M. Clark	115, 704
Pen and pencil case	J. M. Clark	118, 434
Pen and pencil case	W. S. Hicks	120, 520
Pen and pencil case	J. Monaghan and T. Flynn	122, 047
Pen and pencil case	W. S. Hicks	122, 169
Pen-cleaner	S. Darling	110, 959
Pen-holder	A. M. George	111, 194
Pen-holder	H. Roth	111, 683
Pen-holder	J. Jacobs	111, 846
Pen-holder	B. Charles	112, 781
Pen-holder	O. A. Pennoyer	113, 558
Pen-holder	J. Holland	118, 367
Pens from holders, Device for extracting	F. W. Mattern	118, 376
Perch for fowls	L. T. Stetson	121, 067
Percussion-cap carrier	R. Paulson	119, 879
Perforating-machine	F. Anderson	122, 098
Perfuming and disinfecting apparatus	O. Boldemann	113, 619
Petroleum and other liquids, Apparatus for distilling	W. G. Warden	112, 751
Petroleum, Refining	R. Eaton	110, 638
Pharmaceutical still, steam and water bath	R. P. Buckland, jr., and J. A. Gessner	117, 738
Phosphates, Apparatus for drying	F. J. Kimball	114, 304
Photographers' refrigerator	M. A. Thornton	117, 124
Photographers' steeping-tank	J. W. Osborne	114, 186
Photograph, Granulated	W. A. Leggo	115, 489
Photographic apparatus	J. and J. Stock	116, 771
Photographic background	A. R. Gould	121, 715
Photographic blackboard	L. G. Bigelow	115, 812
Photographic dark-chamber, Portable	I. F. Woodward	120, 558
Photographic filtering-apparatus	R. M. Linn	119, 375
Photographic paper, &c., Apparatus for fulminating	J. L. Winner	115, 554
Photographic posing-chair	W. H. Lewis	119, 090
Photographic posing-chair	N. S. Bowdish	120, 485
Photographs, Apparatus for fixing	C. A. Gale	119, 753
Photographs, Mode of applying tints to	H. Vander Weyde	121, 475
Photography	E. J. Foss	118, 006
Photography	F. A. Wenderoth	120, 136
Physicians' saddle-bag	A. M. Leslie	112, 819
Piano	W. F. Ulman	110, 940
Piano	F. Mathushek	113, 073
Piano	A. Faas	118, 353
Piano-action	L. Matt and B. Grueter	115, 077
Piano-action	C. F. T. Steinway	115, 782
Piano, Bell	C. G. Buttkereit	120, 415
Piano-cover, Water-proof	H. F. Herkner and J. W. Post	111, 535
Piano-forte	W. F. Ulman	118, 407
Piano-forte	A. H. Hastings	119, 760
Piano-forte action	F. Mathushek	113, 074
Piano-forte action	F. B. McGregor	113, 785
Piano-forte action	L. Matt	121, 952
Piano-key	W. A. Reed	118, 389
Piano-pedals, Attachment for	S. Schoenbrunn	119, 184
Pianos, Front fall for	A. H. Hastings	115, 053
Pianos, Sounding-board for	E. L. Taylor	121, 686
Pianos, Tuning-pin for	A. J. Faas	118, 354
Piano, Upright	C. F. Chickering	121, 334
Piano-violin	E. D. Blakeman	114, 520
Picker, Fruit	W. L. Shaw	111, 009
Picket-pointer	J. W. Minor	118, 964
Picks and rammers, Manufacture of	D. McNally	120, 658
Picks and similar tools, Machine for manufacturing	A. Buerkle	113, 977
Picks, Apparatus for opening the eyes of	R. Blake	111, 306
Picture-case, Stereoscopic	I. F. Woodward	120, 224
Picture-frame, &c	G. E. and W. C. Collins	122, 158
Picture-frame holder	C. H. Moulton	121, 652
Picture-frames, Wooden mat for	H. W. Curtis	120, 250
Picture nail	T. C. Richards	110, 867
Picture-nail	H. L. Judd	119, 273
Picture-nail	T. C. Richards	119, 648
Pictures, mirrors, &c., Device for hanging	A. A. Fielding	117, 529
Pie-case	H. H. Olds	112, 953
Piercing and lining ears for the reception of ear-rings, Device for	W. C. Edge	113, 031
Pier-glass frames and cornices, Construction of	D. A. Hall and D. Garrison	113, 046
Piers, Caisson for sinking	J. B. Eads	118, 118
Pile-driver	H. Roehrs	117, 465
Pile for nut-blanks, tubes, &c.	J. Ostrander	114, 187

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Pile for nut-blanks, tubes, &c.	J. Ostrander	114, 188
Piles, Composition for the cure of.	L. L. Moore and R. B. S. Whayne	116, 474
Piles for railway-rails, Construction of.	T. and J. W. Richardson and A. Spencer	119, 049
Pill-machine	P. Canhape	110, 630
Pills, Apparatus for sugar-coating.	F. Marriott	116, 304
Pills, Device for administering.	J. Sullivan	121, 684
Pincers for shoemakers	M. Walpole	111, 559
Pincers, Shoemakers'	A. Clarke	113, 261
Pincers, Shoemakers'	A. Clarke	119, 447
Pinch-bar	A. Reese	115, 358
Pinchers	D. Zeller	120, 144
Pin-clamp for riveting	E. L. Gaylord	115, 840
Pinking-machine	T. Haggerty	122, 008
Pin-packages, Case for	C. O. Crosby	121, 492
Pins, Construction of packages of.	C. O. Crosby	121, 491
Pins, Machine for sticking	C. O. Crosby	121, 493
Pins, Papering	G. Fowler	111, 051
Pipe and cigar holder.	V. A. Bond	121, 483
Pipe and tube for water, gas, &c.	F. Chase	115, 106
Pipe-connection.	J. M. Morehead	112, 618
Pipe cores, Device for supporting.	C. J. C. Petersen	121, 961
Pipe-elbow.	W. Austin and W. Oddyke	113, 614
Pipe-elbow.	I. Leas and W. H. France	119, 621
Pipe-ellows, Machine for forming.	C. Hoeller	113, 167
Pipe-ellows, Mode of molding and casting	G. Ross	112, 286
Pipe, Feed-water.	J. Doyle	110, 753
Pipe, Hose	A. R. Reese	115, 895
Pipe, iron, Tin-lined.	C. M. Platt	122, 131
Pipe-molding machine	G. Richardson	112, 495
Pipes and tubes, Electrotyping the interior of, with silver, nickel, &c.	D. Parmelee	114, 191
Pipes, bricks, &c., Concrete for.	T. J. Barron	111, 896
Pipes for water, gas, &c., composition, Manufacture of.	J. R. Griffin	116, 949
Pipes, gas and water, Device for tapping	L. Spaulding and E. E. Guy	119, 895
Pipes, Machine for molding.	B. S. Benson	116, 141
Pipes, Method and apparatus for casting	A. T. Brodie, R. R. Smith, and J. T. Taylor.	121, 151
Pipes, Mode of laying, across rivers.	J. F. Ward	111, 945
Pipes, roofing, flooring, and other articles, Manufacture of, from disintegrated wood.	J. K. Griffin	119, 601
Pipes, sheet-metal, Joint end for	J. T. Fanning	115, 558
Pipes to sinks, drains, &c., Mode of attaching	A. B. Nott	112, 621
Pipes, tubes, buildings, &c., Cement for	T. J. Barron	111, 166
Pipe, Water and drain	T. J. Barron	114, 904
Pipe-wrench	D. Frank and T. Snyder	119, 838
Pipe-wrench attachment for monkey-wrenches	A. H. Woodruff	120, 475
Pistol, Air	G. H. Snow and E. H. Hawley	118, 886
Piston	W. H. Holland	121, 103
Piston	A. H. Smith	110, 874
Piston and piston-packing	G. H. Reynolds	114, 969
Piston and piston-packing	E. Sullivan	119, 247
Piston and valve rod packing, Metallic.	G. M. Cruickshank	112, 423
Piston, Balancing	L. Finlay	118, 227
Piston-facing machine	W. W. Lowerree and G. A. Sanderson	116, 730
Piston for printing-presses	C. B. Cottrell	121, 759
Piston for steam engines and pumps.	J. A. Huss	115, 858
Piston-head for steam-engines	O. S. Howard	120, 586
Piston-head, Steam-engine	J. Rees	116, 353
Piston-packing	G. Wells	111, 997
Piston-packing	A. S. Cameron	112, 685
Piston-packing	P. Estes	114, 427
Piston-packing	J. McAlonan	116, 336
Piston-packing	G. F. Blake	118, 838
Piston-packing	J. Clark	118, 843
Piston-packing	S. L. Wiegand	119, 100
Piston-packing	E. Sullivan	119, 248
Piston-packing	G. F. Blake	120, 565
Piston-packing	H. P. McCarroll	120, 888
Piston, Steam	E. Merriman	116, 853
Pitman	G. W. Jayson	112, 403
Pitman-connection	A. Ketchum	121, 759
Pitman-connection for steam-engines	S. Van Emon	120, 222
Pitman-rod	E. S. Blake	116, 542
Pitman-rod connection.	E. G. Fish	113, 039
Pivot for seats.	J. J. Wilson	113, 606
Pivot for turn-tables, Lubricating	J. W. Murphy	113, 685
Plane	J. K. P. Smith	114, 613
Plane, Bench.	J. R. Bailey	112, 675
Plane, Bench.	S. W. Palmer and E. G. Storke	121, 406
Plane, Carpenters'	W. Miller	112, 062
Plane, Carpenters'	J. R. and W. Brown	112, 215

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Plane, Carpenters'	H. N. Frederick	119, 133
Plane, Carpenters'	R. Phillips	120, 212
Plane-iron	I. Almy and S. A. Drake	114, 085
Plane, Joiners'	G. A. Warren	111, 890
Plane, Molding	J. E. Donaldson	114, 779
Plane or parallel movement, Apparatus for producing	A. G. Barrett	122, 145
Planers, Attachment for	A. S. Hewlett	121, 248
Plane-stock	L. Bailey	113, 003
Planing-machine	J. Goodrich and H. J. Colburn	111, 632
Planing-machine	S. A. Woods	111, 894
Planing-machine	C. Levery	112, 821
Planing-machine	S. Whitesides	115, 401
Planing-machine	J. J. Russ	116, 496
Planing-machine	S. A. and G. E. Woods	117, 230
Planing-machine	L. T. Smart	118, 754
Planing-machine	G. H. Mansfield	119, 163
Planing-machine	C. E. McBeth, F. Bentel, W. C. Marge- dant, and H. Climer	120, 448
Planing-machine	H. A. Lee	120, 589
Planing-machine	A. J. Watson	121, 028
Planing-machine attachment	L. C. Brastow and A. M. Zwiebel	121, 230
Planing-machines, Cutter-head for	H. Climer and C. E. McBeth	113, 262
Planter and cultivator	A. Q. Withers	111, 101
Planter and roller, Combined	J. A. Comstock	118, 342
Planter and seeder, Combined	S. Hiestand	113, 718
Planter, Combined corn and cotton	W. B. Townes	114, 625
Planter, Corn	J. Reichelderfer	110, 679
Planter, Corn	F. W. Poe, jr.	110, 786
Planter, Corn	J. R. Randall	110, 788
Planter, Corn	J. M. Whitmore and J. N. Arvin	110, 811
Planter, Corn	Y. I. Edwards	110, 837
Planter, Corn	L. Becker	111, 510
Planter, Corn	L. Scofield	111, 687
Planter, Corn	J. M. Parsons	111, 774
Planter, Corn	C. F. Bilhimer	111, 808
Planter, Corn	A. Edwards	111, 826
Planter, Corn	J. Schott	111, 979
Planter, Corn	J. M. Aitchison	112, 006
Planter, Corn	R. A. Boulware	112, 894
Planter, Corn	J. B. Conaty and M. Catt	113, 018
Planter, Corn	U. T. Wilson	113, 233
Planter, Corn	L. Graham	113, 422
Planter, Corn	W. Morrison	113, 550
Planter, Corn	G. W. Lewis	113, 717
Planter, Corn	J. D. Delap	113, 747
Planter, Corn	G. J. Vaught	113, 819
Planter, Corn	W. J. Sager	113, 936
Planter, Corn	H. Baughman	114, 390
Planter, Corn	W. C. Bowman	114, 908
Planter, Corn	S. J. Bye	116, 552
Planter, Corn	J. T. Force	116, 827
Planter, Corn	J. A. Knetzer	117, 646
Planter, Corn	C. T. Merry and M. A. Dunton	117, 910
Planter, Corn	W. B. Chambers	117, 981
Planter, Corn	J. Jackson, jr.	118, 134
Planter, Corn	L. L. Haworth	119, 142
Planter, Corn	N. B. Moody	119, 470
Planter, Corn	F. A. Ramey and R. R. Cross	119, 950
Planter, Corn	A. H. Stark and J. C. Mitchell	120, 340
Planter, Corn	T. M. Edgar	120, 424
Planter, Corn	A. Hearst	120, 643
Planter, Corn	B. Ingebrigtsen	120, 649
Planter, Corn	S. Stevens	120, 793
Planter, Corn	D. Altman	120, 926
Planter, Corn	D. J. Sheers	121, 012
Planter, Corn	J. Matthews	121, 116
Planter, Corn	L. Schofield	121, 204
Planter, Corn	H. Gortner	121, 357
Planter, Corn	E. J. Myers	121, 648
Planter, Corn	J. Pies	122, 191
Planter, Corn and seed	R. H. Mathews	113, 755
Planter, corn, Convertible	A. Runstetler	116, 493
Planter, Cotton	D. F. Welsh	110, 807
Planter, Cotton	R. F. Norwood	112, 171
Planter, Cotton	D. W. C. Ellis and G. N. Deming	112, 567
Planter, Cotton	J. Hughes	113, 671
Planter, Cotton	P. H. Altstatt	116, 003
Planter, Cotton	J. P. Clopton	116, 556
Planter, Cotton	J. Knull and J. P. Spence	119, 467
Planter, Cotton	R. G. Hobson	120, 742
Planter, Cotton	H. A. Ridley	121, 815

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Planter, Cotton-seed	F. F. Carroll	113, 626
Planter, Cotton-seed	P. E. Smith	115, 123
Planter, Cotton-seed	T. E. C. Brinly	115, 929
Planter, Cotton-seed	J. H. Sorey	120, 544
Planter, Cotton-seed and guano-distributor	J. Rafer	114, 600
Planter, Hand	J. H. Latimer	122, 121
Planter, Hedge	N. L. Griffith	117, 622
Planter, Potato	H. J. Kent	111, 217
Planter, Potato	G. Knowlton	112, 470
Planter, Potato	J. C. Mills	112, 617
Planter, Potato	L. A. Aspinwall	119, 687
Planter, Potato	A. E. Payne	121, 957
Planter, Seed	W. F. West	110, 706
Planter, Seed	C. R. Sargent	114, 047
Planter, Seed	C. J. Turner and M. L. Wilkinson	114, 066
Planter, Seed	W. Knowland and K. Collings	116, 327
Planter, Seed	B. Saunders	116, 633
Planter, Seed	B. Baker	117, 502
Planter, Seed	T. G. S. Vaniz	117, 835
Planter, Seed	E. E. Chesney	120, 241
Planter, Walking	N. Earlywine	120, 423
Planter, Walking	A. W. Dunlevy	120, 507
Plant-grower	B. B. Chadwick	115, 162
Plant-protector	I. Mayfield	116, 974
Plants and animals, Accelerating the growth of	A. I. Pleasanton	119, 242
Plants, fibrous, Machine for the treatment of	A. Bouchard	114, 400
Plant-stand, Folding	B. B. Nourse	121, 541
Plaster for walls	B. R. Smith and J. C. Harris	111, 267
Plaster, Medicated	A. D. Richards	111, 682
Plaster, Medicated	G. E. Mitchell	118, 872
Plaster, Medicated voltaic	W. C. Collins	116, 562
Plaster, Sticking or adhesive	J. C. Battersby	114, 750
Plate for artificial teeth	G. Morrison	121, 802
Plate for photographers and others, Enameled, flexible, metallic	W. Hoge and J. R. Peck	115, 612
Plate-glass, Application of bronze and gilding to	E. Ingraham	113, 772
Plate-glass, Method of casting	E. Cossaboom	119, 451
Platen feed-guide	E. L. McGill	112, 827
Plate, Stair and floor	P. W. Neefus	112, 168
Platform or handle for fruit-baskets	J. Knapp	121, 054
Plating and polishing	M. J. A. Keane	111, 945
Platinum for filling teeth, Preparation of	E. G. and L. Kearsing	111, 551
Plier	N. Thompson	119, 726
Plier	G. W. Moore	116, 473
Plow	N. Fanglit	110, 758
Plow	J. M. Leonard	110, 924
Plow	H. R. Bowen and L. D. Robnett	111, 033
Plow	E. Hayman	111, 055
Plow	T. Harding	111, 056
Plow	J. Pinkham	111, 244
Plow	J. P. Pritchard	111, 247
Plow	S. B. King	111, 651
Plow	J. Lane	111, 854
Plow	F. Cremer	111, 911
Plow	J. Oliver	111, 965
Plow	A. Richard	111, 975
Plow	J. B. Ferguson and S. M. White	112, 234
Plow	H. Washburn	112, 302
Plow	S. M. Stewart	112, 508
Plow	L. F. Frazee	112, 913
Plow	H. Roney	113, 098
Plow	J. Lane, jr	113, 436
Plow	J. Blanchard	113, 484
Plow	W. Britton	113, 733
Plow	C. A. Beard and E. E. Evans	113, 960
Plow	A. L. W. Stroud	114, 221
Plow	A. Weaver	114, 237
Plow	W. E. Parker	114, 334
Plow	M. R. Shalters	114, 611
Plow	T. H. Reynolds	114, 855
Plow	J. G. Miner	115, 629
Plow	C. F. Chambers	115, 701
Plow	J. Coston	115, 710
Plow	J. T. Story	115, 907
Plow	M. L. Gibbs	116, 048
Plow	A. Roden	116, 355
Plow	E. Wiard	117, 024
Plow	M. P. Rose	117, 335
Plow	P. H. Statke	117, 574
Plow	S. A. Cummins	117, 603
Plow	J. G. Miner	117, 662

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Plow.....	S. D., D. A., and J. B. Morrison	117, 801
Plow.....	T. Edmunds	118, 119
Plow.....	I. P. Tice	118, 758
Plow.....	L. S. Wilson	118, 769
Plow.....	A. H. Whittick	118, 890
Plow.....	J. Hapgood	118, 932
Plow.....	R. Johnson	118, 945
Plow.....	J. C. Vertrees	119, 433
Plow.....	T. Cumming, jr.	120, 248
Plow.....	S. Cooley	120, 718
Plow.....	L. E. Burdin	121, 153
Plow.....	H. M. Keith	121, 382
Plow.....	W. Yost	121, 567
Plow.....	J. Butler	121, 582
Plow.....	J. M. Smith	121, 676
Plow.....	W. H. H. Doty	122, 162
Plow.....	D. M. Lamb	122, 261
Plow and marker, Combined	O. M. Pond	114, 472
Plow and scraper, Combined	J. C. Cameron	113, 625
Plow and seeder, Combined	W. C. Bibb	113, 482
Plow and stock for cultivators, Combined	M. Kennedy	119, 618
Plow-attachment for cutting stubble	J. T. Hovis	116, 446
Plow-beam	S. H. Miller	111, 764
Plow-beam, Iron	A. Ball	110, 722
Plow-castings, Chill for	J. Oliver	114, 469
Plow-cleaner	G. W. Burr	122, 155
Plow-clevis	A. McCollam	117, 187
Plow-clevis	J. Brison	119, 502
Plow-coltter	S. Way	111, 158
Plow-coltter	E. C. Hodge	112, 039
Plow-coltter	W. H. Stone	114, 220
Plow-coltter	H. S. Hoxie	114, 822
Plow-coltter	D. D. Gibson	120, 055
Plow, Combined gang and subsoil	J. L. Bond	111, 428
Plow, Combined subsoil, drill, and side-hill	W. W. Spear	119, 423
Plow, Corn	B. W. and N. T. Remy	113, 206
Plow, Cultivator	J. Singer	111, 391
Plow, Cultivator	W. Gowen	111, 925
Plow, Cultivator	L. S. Tewell	114, 726
Plow, Cultivator	D. Culver	115, 033
Plow, Ditching	R. M. Primmer	117, 813
Plow, Ditching	H. D. Williams	120, 690
Plow, Double-shovel	R. P. Van Horne	111, 793
Plow-fender	A. P. Webber	122, 087
Plow, Furrowing	A. P. and C. F. Rohrer and J. H. Blose	122, 284
Plow, Gang	W. Parrish	115, 980
Plow, Gang	J. R. McConnell	111, 226
Plow, Gang	J. W. Sursa	112, 394
Plow, Gang	J. Murray	113, 081
Plow, Gang	L. Chapman	113, 627
Plow, Gang	J. Oler	114, 033
Plow, Gang	W. B. Quick	115, 639
Plow, Gang	M. Likes	116, 332
Plow, Gang	S. J. Gillham, W. C. Taylor, and J. W. Stolle	116, 428
Plow, Gang	W. Hay and T. B. Freeman	116, 956
Plow, Gang	J. H. Glass	117, 404
Plow, Gang	L. T. Webster	117, 707
Plow, Gang	S. A. Worthen	117, 711
Plow, Gang	J. Blackwood	117, 970
Plow, Gang	H. B. Smith	119, 192
Plow, Gang	J. M. Hine and E. Card	120, 384
Plow, Gang	L. Chapman	120, 572
Plow, Gang and subsoil	J. L. Bond	113, 390
Plow, garden, Hand	W. D. Smith	118, 290
Plow, Hand	N. Rue	112, 497
Plow-handles, Machine for forming	E. G. Matthews	114, 170
Plowing-machine, Steam	Z. Rider	117, 113
Plow-landsides, Manufacture of	J. Duff, H. Roberts, and G. D. Nourse	118, 848
Plow-points, Attaching	G. W. Hildreth	113, 665
Plow, Riding	B. C. Hoyt	115, 057
Plow, Reversible	E. Jennings	116, 314
Plow, Rotary	J. R. Morris	113, 190
Plows, Attaching handles to	J. L. Laughlin	115, 069
Plows, Attachment of revolving mold-board for	J. S. Godfrey	114, 002
Plows, Attachment of revolving mold-boards for	J. S. Godfrey	112, 333
Plows, Coupling for	G. Owen	112, 273
Plows, Fender for	B. F. Neely	117, 317
Plows for subsoiling, Attachment to	R. Johnson	111, 852
Plowshare	J. Lane	110, 860
Plowshare, Extension	G. W. Thorp	110, 693

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Plow, Shovel.....	F. H. Bowlds.....	112, 212
Plow, Shovel.....	S. W. Pope.....	113, 341
Plow, Shovel.....	T. Meikle.....	121, 535
Plow, Side-hill.....	G. W. Leonard.....	116, 070
Plow, Side-hill.....	D. C. Day.....	117, 054
Plow, side-hill, Reversible.....	C. B. Pettengill.....	118, 049
Plows, Manure-rake attachment for.....	M. Van Duine and J. De Jonge.....	111, 155
Plows, Mold-board for.....	I. T. Dyer.....	113, 642
Plow, Snow.....	A. Stutzman.....	114, 623
Plow, Snow.....	T. S. Brown.....	118, 784
Plow, Snow, and rail-cleaner.....	L. J. Woodruff.....	114, 633
Plows, Reversible.....	G. W. Thompson.....	110, 692
Plows, Revolving mold-board for.....	J. S. Godfrey.....	113, 760
Plows, Roller-attachment for.....	C. M. Young.....	116, 388
Plows, Root-cutter for.....	J. W. Baker.....	115, 013
Plows, Steam-carriage for.....	M. N. Lynn.....	117, 307
Plows, Stubble-attachment for.....	J. Kinney.....	112, 152
Plows, Stubble-turner for.....	G. B. Smith.....	121, 297
Plow, Steam.....	M. N. Lynn.....	116, 610
Plow, Steam.....	H. Miller.....	118, 143
Plow, Steam.....	O. Hyde.....	120, 071
Plow, Subsoil.....	M. R. Jones.....	110, 660
Plow, Subsoil.....	R. Themar and B. Brothers.....	115, 543
Plow, Sulky.....	E. Meloy and A. R. Sanley.....	111, 366
Plow, Sulky.....	M. A. Elliott.....	112, 434
Plow, Sulky.....	J. L. Van Gorder.....	118, 563
Plow, Sulky, Attachment for.....	J. Worrell and J. H. Rynerson.....	113, 234
Plow, Sulky, Attachment for.....	J. Worrell and J. H. Rynerson.....	113, 235
Plow, Sulky, Attachment for.....	J. Worrell and J. H. Rynerson.....	120, 560
Plow, Sulky, Attachment to.....	G. M. Smith.....	115, 537
Plows, Swivel-clevis for.....	J. B. Small and F. F. Holbrook.....	114, 212
Plow, Wheel.....	A. J. Borland.....	117, 734
Plow, Wheel.....	R. Coreth.....	118, 694
Plow, Wheel.....	W. J. Connor.....	118, 792
Plumbers' water-boiler.....	A. R. Robb.....	114, 347
Plumbing, Pipe-attachment in.....	A. Barrows.....	114, 635
Pneumatic gas, for illuminating, &c., Manufacture of.....	J. W. Stow.....	113, 702
Pneumatic gas, Manufacture of.....	H. Bloomfield.....	115, 684
Pocket-book guard.....	C. C. Cahoon and A. W. Robinson.....	122, 223
Pocket-books, Safety-attachment for.....	J. Brown, jr.....	114, 404
Pocket-flask, Self-heating.....	S. Hughes.....	114, 143
Pocket, Safety.....	E. Jones.....	116, 318
Pockets, Safety-clasp for.....	D. C. Tuck.....	122, 140
Pockets for traveling-bag partitions, Mode of securing.....	H. Braunhold.....	117, 858
Poison, Precautionary attachment for bottles containing.....	J. Harrison.....	110, 760
Poke, Animal.....	L. Kelley.....	112, 150
Poke, Animal.....	J. Hopkins.....	115, 319
Police-baton.....	C. Cast.....	113, 061
Police-baton.....	H. C. Reichard.....	116, 097
Polishing and scouring, Composition for.....	J. B. Rand.....	120, 397
Polishing, Composition for.....	C. J. F. Kleemann.....	112, 154
Polishing-machine.....	S. Bevan.....	114, 098
Polishing-machine.....	P. E. Randolph.....	114, 341
Polishing ore to aid in amalgamating the precious metals.....	I. W. Forbes.....	115, 293
Polishing-stick, Emery.....	G. C. Taft.....	115, 384
Pool-board.....	H. W. Collender.....	116, 159
Porcelain-knob machine.....	T. J. Sloan.....	114, 210
Porcelain knobs, &c., Machine for making.....	T. J. Sloan.....	122, 072
Postage-stamp holder.....	J. Ropes.....	111, 355
Postage-stamp holder.....	G. C. Hatch.....	120, 970
Postal card.....	W. I. Ludlow.....	122, 041
Post, Fence.....	A. J. Gill.....	113, 872
Post, Fence.....	J. A. Otis.....	114, 189
Post, Fence.....	W. A. Middleton.....	120, 308
Post, Hitching.....	E. F. Shoenberger.....	114, 982
Post, Hitching.....	C. Ayres.....	117, 962
Post-hole digger.....	A. E. Lindsley.....	111, 757
Post-hole digger.....	B. B. Herrick.....	112, 454
Post-hole digger.....	E. R. Sumner.....	118, 560
Post-hole digger and ditcher.....	R. L. Jones.....	117, 297
Post, Lamp.....	L. A. Gouch.....	121, 165
Post-office letter-box.....	S. N. Brooks.....	119, 212
Post-office letter-stamping apparatus.....	T. C. Hargrave.....	121, 099
Post, safe, Binding.....	D. Fitzgerald.....	121, 454
Posts, Machine for boring.....	J. R. Group.....	111, 532
Posts, Machine for boring.....	W. F. Cline and P. D. Weaver.....	120, 941
Post, Street gas-lamp.....	S. W. France.....	121, 456
Pot and kettle covers.....	S. Van Horn.....	117, 834
Potato-bug destroyer.....	J. B. Turney.....	116, 894
Potato-bugs, Compound for destroying.....	L. Pagin.....	112, 732

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Potato-digger	J. Davis	111, 437
Potato-digger	R. B. Robbins	111, 571
Potato-digger	G. C. Love	111, 656
Potato-digger	W. D. Harrell	112, 592
Potato-digger	J. P. Lafetra	113, 308
Potato-digger	J. A. Wadham	113, 373
Potato-digger	J. P. Radley	113, 449
Potato-digger	S. Ransom	114, 041
Potato-digger	S. E. Anthony	114, 088
Potato-digger	C. Cooney	114, 531
Potato-digger	R. A. Haw	117, 415
Potato-digger	H. J. Moore	117, 913
Potato-digger	J. B. Baker	118, 895
Potato-digger	F. Jones	119, 152
Potato-digger	I. Hicks	119, 461
Potato-digger	W. Cousens	119, 577
Potato-digger	R. B. Robbins	120, 775
Potato-digger	J. Smith	120, 832
Potato-digger	M. Johnson	121, 379
Potato-digger	M. Stewart	121, 906
Potato-masher	C. A. Frederick	112, 577
Potato-masher, steak-pounder, and ice-breaker, Combined.	H. B. Sticher	121, 434
Potato-planter and digger, Combined	J. C. Walker	112, 870
Potato-probe	J. A. Beal	112, 312
Potato-starch, Manufacture of	C. B. Hutchins	116, 597
Potato-vines and digging potatoes, Machine for cutting.	T. E. C. Brinly	118, 585
Pot, Coffee	F. I. Sage	117, 210
Pot, Coffee	J. W. Patterson	121, 126
Pot-cover	W. H. Barker	118, 896
Pot, Glue	J. I. Baringer	119, 002
Pot, Tea and coffee	H. J. Hammond	119, 352
Pot, Tea and coffee	E. M. Burchard	121, 326
Pottery-ware, Machine for making	S. R. Thompson	113, 816
Pound-net for fishing	P. E. Tiernan	113, 817
Powder-flask	J. T. and G. D. Capewell	112, 542
Powder-flask	A. Diezel	120, 047
Powders, Apparatus for dividing	G. P. Allen	116, 253
Powders, Instrument for measuring	W. Thomson, jr.	120, 404
Powders, Putting up	H. Sawyer	118, 819
Power, Animal	W. Patterson	117, 922
Power, Animal	M. G. Wood	120, 357
Power, Apparatus for accumulating	A. C. Platt	117, 454
Power, Apparatus for transmitting and applying	T. Damon	121, 854
Power for small machinery	C. L. Johnson	115, 864
Power, Foot	G. B. Kirkham	121, 525
Power, Horse	T. H. Russell	118, 056
Power, Horse	I. Starr	118, 292
Power, Horse	J. M. Albertson	118, 893
Power, Horse	R. J. Cheney	119, 221
Power, Horse	J. Marshall	119, 279
Power, Horse	C. M. Erwin	119, 587
Power, Horse	J. W. Knox	119, 774
Power, Horse	W. R. Wright and D. A. Warnock	119, 909
Power, Horse	J. Valentine	119, 954
Power, Horse	S. S. Ammons	120, 018
Power, Horse	D. S. and J. D. Heebner	120, 066
Power, Horse	S. Basket	120, 232
Power, Horse	H. Smith	120, 678
Power, Horse	L. A. Faught	121, 048
Power, Horse	A. Wissler and J. Gamber	121, 740
Power, Horse	M. H. Marmaduke and B. F. Stewart	121, 882
Power, Horse	W. Deering	121, 932
Power, Mechanism for transmitting	E. P. Jaquith	115, 861
Power, Motive	T. J. Polson	118, 641
Power, Motive	J. S. Swann	118, 982
Power, Motive	J. N. Bethune	119, 260
Power, Motive	J. B. Hunter	119, 362
Power, Propelling	N. B. Baldwin	120, 846
Power to machinery, Apparatus for transmitting	W. H. Thorne	113, 113
Power, Transmitting	O. Marland	119, 164
Prairie-plow jointer	A. J. Spicer	111, 786
Preparation of paper-pulp and manufacture of paper	J. Denis	113, 502
Prison-grating	E. May	114, 584
Privies, Apparatus for cleaning	H. C. Bull	115, 565
Privy	F. Riedel	111, 976
Privy	F. Riedel	115, 239
Privy-seat cover	W. Street	120, 121
Projectile	E. C. Hancock	114, 807
Projectile	T. Hill	117, 172
Projectile	J. G. Butler	119, 313
Projectile	J. H. Helm	122, 014

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Projector.....	W. Farini.....	115, 837
Proof-spirits in fermented mash, Apparatus for ascer- taining the.	G. Tagliabue.....	111, 885
Propeller.....	E. Eltinge and J. C. Brodhead.....	110, 908
Propeller.....	A. J. Marshall.....	112, 366
Propeller, Flexible.....	R. Hunter.....	114, 944
Propeller for vessels.....	C. A. S. Harris.....	113, 163
Propeller, Marine.....	G. B. Cocks.....	113, 143
Propeller, Minnow.....	W. D. Chapman.....	115, 434
Propeller, Screw.....	H. Zahn.....	118, 325
Propelling-apparatus for vessels.....	C. E. Tripler.....	116, 513
Press and tamper, Cotton.....	C. K. Marshall.....	113, 901
Press, Back-pad.....	E. W. Harlow.....	111, 119
Press, Baling.....	E. R. Wallace.....	111, 993
Press, Baling.....	T. J. Corning.....	112, 224
Press, Baling.....	I. P. Walker.....	116, 650
Press, Baling.....	W. J. Arrington.....	117, 962
Press, Baling.....	G. Brodie.....	119, 009
Press, Baling.....	N. Chapman.....	119, 573
Press, Baling.....	L. Dodge.....	120, 048
Press, Baling.....	T. E. Marable.....	120, 297
Press, Baling.....	J. D. Towers and G. J. Harris.....	120, 347
Press, Baling.....	T. J. Corning.....	120, 942
Press, Baling.....	J. S. Cook.....	121, 087
Press, Baling.....	W. H. H. Peairs.....	121, 408
Press, Brick.....	J. A. Millholland.....	111, 076
Press, Bundling.....	C. R. Taylor.....	118, 829
Press, Cheese.....	C. L. Haines.....	113, 763
Press, Cider.....	J. Holbrook.....	117, 075
Press, Clothes-wringing.....	C. Robinson.....	113, 347
Press, Copying.....	A. Whitcomb.....	116, 781
Press, Copying.....	J. Fensom.....	116, 824
Press, Copying.....	A. Le Clercq.....	122, 265
Press, Cutting.....	N. J. Simonds.....	115, 118
Press, Cotton.....	J. B. Gridley.....	111, 739
Press, Cotton.....	R. J. Harrison.....	111, 840
Press, Cotton.....	G. Utley.....	112, 095
Press, Cotton.....	R. M. Brooks.....	112, 413
Press, Cotton.....	E. W. Long and I. N. Patten.....	112, 822
Press, Cotton.....	C. C. Conner.....	113, 265
Press, Cotton.....	F. Simmons.....	114, 056
Press, Cotton.....	H. J. Davis.....	114, 271
Press, Cotton.....	J. P. Bolin.....	116, 144
Press, Cotton.....	A. B. McGonnigill.....	116, 733
Press, Cotton.....	U. T. Wilson.....	117, 027
Press, Cotton.....	J. Schley.....	118, 060
Press, Cotton.....	R. Mauldin.....	118, 142
Press, Cotton.....	S. S. Rembert.....	118, 275
Press, Cotton.....	J. Templeton.....	118, 756
Press, Cotton.....	G. W. Grader.....	119, 346
Press, Cotton.....	J. B. Knight.....	119, 367
Press, Cotton.....	L. Lewis.....	119, 934
Press, Cotton.....	C. J. Beasley.....	121, 317
Press, Cotton.....	T. D. Simpson and W. S. Lamkin.....	122, 197
Press, Cotton and hay.....	B. Stallings.....	113, 700
Press, Cotton and hay.....	C. K. Marshall.....	113, 900
Press, Cotton and hay.....	G. P. Webster, jr.....	117, 491
Press, Cotton and hay.....	A. McGowen.....	117, 794
Press, Cotton and hay.....	G. H. Aylworth.....	120, 612
Press, Cotton and hay.....	J. D. Dix.....	121, 121
Press, Cotton and hay.....	E. S. Collins.....	121, 591
Presses, Tobacco and other.....	N. M. Pepper.....	122, 276
Press for finishing cloth.....	C. Henbach.....	115, 203
Press for hay, &c.....	W. H. Reynolds.....	116, 869
Press for hay, cotton, &c.....	C. D. Findlay and D. D. Craig.....	111, 923
Press for pressing yarn, &c.....	T. Stibbs.....	119, 195
Press for stamping pans, dishes, &c.....	J. B. Jones.....	119, 771
Press, Fruit.....	G. J. Wells.....	112, 304
Press, Glass.....	A. P. Brooke.....	116, 926
Press, Glass-molders'.....	F. Klinch.....	117, 785
Press guide, Printing.....	A. L. Bevans.....	111, 304
Press, Hat.....	S. Beatty.....	112, 677
Press, Hat.....	G. Bartell.....	118, 578
Press, Hay.....	F. F. Hamilton.....	110, 849
Press, Hay.....	A. Spanier.....	118, 164
Press, Hay.....	O. Bossee.....	118, 582
Press, Hay.....	F. F. Hamilton.....	121, 244
Press, Hay and cotton.....	N. Chapman.....	111, 043
Press, Hay and cotton.....	J. L. White.....	111, 706
Press, Hay and cotton.....	C. A. Robinson.....	112, 966
Press, Hay and cotton.....	E. Rock.....	115, 106

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Press, Hay and cotton	W. M. Smith	115, 126
Press, Hay and cotton	D. Knowles	116, 965
Press, Hay and cotton	L. Negley	119, 528
Press, Hay and cotton	J. J. Siveley	121, 133
Press, Hydraulic	J. T. Burr	117, 043
Pressing and stuffing machine	E. S. Holloway	116, 709
Pressing cast metal	J. R. Tarr	120, 467
Pressing, ironing, and smoothing machine	H. Hamill	115, 604
Press, Lithographic	T. Hunter	111, 749
Press, Lithographic	C. C. Maurice	116, 335
Press, Lithographic printing	E. S. Boynton	116, 406
Press, Lever	J. Outland	117, 919
Press, Oil	A. Judson	117, 641
Press, Power	C. J. Beasley	113, 246
Press, Power	M. G. Wilder	116, 383
Press, power, Portable	T. B. Wait	116, 376
Press, Printing	R. C. Warwick	111, 407
Press, Printing	E. H. Smith	111, 581
Press, Printing	A. H. Bangle	111, 805
Press, Printing	G. W. Hunt	112, 249
Press, Printing	J. T. Robertson	113, 346
Press, Printing	R. M. Hoe	113, 769
Press, Printing	J. C. McDonald and J. Calverly	114, 020
Press, Printing	A. Campbell	114, 105
Press, Printing	A. Campbell	114, 106
Press, Printing	J. Gough	114, 130
Press, Printing	C. B. Cottrell	114, 268
Press, Printing	M. Gally	114, 285
Press, Printing	J. Henry	114, 557
Press, Printing	W. H. R. Toye	115, 391
Press, Printing	T. H. Ide	116, 060
Press, Printing	T. Leavitt	117, 038
Press, Printing	R. J. Stuart	117, 219
Press, Printing	W. L. Balch	118, 182
Press, Printing	F. L. Bailey	118, 835
Press, Printing	R. J. Coons	120, 040
Press, Printing	C. B. Cottrell	120, 041
Press, Printing	J. B. Adt	120, 225
Press, Printing	G. P. Gordon	120, 377
Press, Printing	B. Huber	120, 646
Press, Printing	G. W. Prouty	121, 256
Press, Roofing-tile	J. Koehler	110, 859
Press, Screw	M. Safford	117, 468
Press, Screw	L. J. Knowles	122, 259
Press, Screw-die	J. H. Clapp	120, 712
Press, Steam and hydraulic	J. F. Taylor	112, 298
Press, Tobacco	H. H. Alms	111, 800
Press, Tobacco	A. N. Zell	112, 521
Press, Tobacco, hay, and cotton	L. H. Moss	112, 065
Pressure in steam-boilers, Method of reducing	G. Sewell	114, 052
Pressure-regulator for water-works	P. Holly	114, 683
Press, Wine	J. L. Davenport and C. G. Chase	111, 183
Press, Wine	A. F. Wyker	113, 609
Press, Wine	C. F. Hartmann	115, 731
Press, Wine	J. H. Crandell	118, 911
Press, Wine and cider	T. W. Grinter	111, 640
Press, Wine and cider	T. M. Willett, jr.	118, 144
Preventing railway-axles from heating, Device for	A. B. Tripler	118, 760
Primer for cartridges	A. C. Hobbs and J. Oreutt	120, 196
Printers' case	W. H. A. Gresham	112, 445
Printers' case	A. T. De Puy	114, 273
Printers' column-rule	A. J. Duganne	118, 439
Printers' furniture	J. F. Uhlhorn	115, 136
Printers' furniture	W. H. Windsor	115, 404
Printers' galley	J. F. Bronson	121, 041
Printers' galley-rest	J. M. Murphy	116, 857
Printers' inking-rollers, Composition for	A. Van Bibber	113, 224
Printers' leads, Machine for making	I. Schoenberg	112, 384
Printers' rollers, Apparatus for cleaning and pre-serving	S. Crump	120, 043
Printers' rules, Machine for cutting and mitring	F. H. Aiken	111, 896
Printers' rules, Machine for ornamenting	J. M. Conner	115, 934
Printing and ornamenting	J. L. Wells	118, 992
Printing frame, Photographic	J. G. Coffin	120, 245
Printing, Lithographic	O. Dubois	113, 276
Printing-machine	M. Bebro	118, 509
Printing-machine, Oil-cloth	E. A. Goodes	112, 443
Printing-machine, Oil-cloth	C. Rommel	113, 570
Printing-machinery, Oil-cloth	W. H. Halsey	112, 032
Printing or painting on surfaces, Composition for	A. Farrar	113, 755
Producing the electric light	E. L. C. D'Ivernois	114, 652

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Printing-telegraph apparatus	G. L. Anders	117, 239
Pulley	S. A. Smith	111, 582
Pulley	M. Ward	118, 761
Pulley	G. C. Brown	115, 022
Pulley-block	H. Smith	115, 248
Pulley-block	R. Marsden	116, 613
Pulley-block	H. Cherry	120, 940
Pulley-block, Differential	C. Hall	119, 981
Pulley, Expanding	G. S. Barton	113, 723
Pulley, Extension	W. Onions and I. Bagnall	113, 789
Pulleys and wheel-hubs, Method of fastening to shafts	E. G. Shortt	116, 238
Pulley, Self-oiling	J. Goodrich and H. J. Colburn	114, 129
Pulley, sheave, and wheel	N. Thompson	119, 430
Pulleys, Mode of balancing	E. W. Phelps	121, 411
Pulp-engine or crusher	M. R. Fletcher	116, 039
Pulp, Machine for converting wood or other fibrous material into	J. Bridge	115, 274
Pulp, Process of reducing wood and other fibrous substances to	V. E. Heegan	115, 740
Pulverized ore so as to aid amalgamating, Cleaning	I. W. Forbes	115, 294
Pulverizer and corn-marker, Combined	T. B. Jones	121, 629
Pulverizing the soil, Device for	G. Shelton	117, 473
Pulverizing the soil, Machine for	G. P. De Yo	116, 278
Pump	J. R. Bassett	110, 632
Pump	N. P. Sheldon	110, 936
Pump	E. T. Jeukins	110, 976
Pump	P. Harvey	111, 120
Pump	G. H. Laub	111, 219
Pump	J. H. McGowan	111, 227
Pump	H. Camp	111, 316
Pump	T. O. Jones	111, 349
Pump	T. J. Lapsley	111, 354
Pump	O. Higgins	111, 645
Pump	J. Humphrey	111, 748
Pump	C. S. Merrill	111, 961
Pump	G. F. and H. F. Shaw	111, 983
Pump	N. P. Coffin	112, 018
Pump	D. Lomis, J. Winters, and A. Stark	112, 157
Pump	J. S. Patric	112, 177
Pump	I. Dillingham	112, 561
Pump	B. F. McKeehan	112, 730
Pump	N. T. Coffin	113, 144
Pump	J. P. Gallagher	114, 284
Pump	A. P. Brown	114, 403
Pump	T. B. Goulding	114, 668
Pump	Z. T. Sweet	114, 689
Pump	A. D. Laws and J. C. Cook	115, 745
Pump	J. A. Sinclair	115, 776
Pump	L. J. Knowles	116, 454
Pump	D. J. Gorton	116, 703
Pump	W. F. Robinson	117, 463
Pump	E. S. Crowell	118, 206
Pump	J. Edson and P. Noyes	118, 222
Pump	J. Jonson	118, 859
Pump	J. Roberts	119, 650
Pump	J. Marquis	120, 655
Pump	N. W. Wheeler	120, 841
Pump	A. J. Hull	120, 973
Pump	G. Steck and F. Arnold	121, 016
Pump	H. Spear	121, 209
Pump	H. E. Braunfeld	121, 843
Pump	Z. Waters and S. Bradley	121, 918
Pump and fire-engine, Steam	J. J. Whitaker	115, 918
Pump, Belt	S. C. Murdock and T. H. Borland	122, 274
Pump, Cattle	G. B. Roe	121, 731
Pump, Deep-well	T. J. Trapp	117, 019
Pump, Gas	W. H. Pollard	117, 925
Pump, Gas	W. Foster	118, 709
Pumping engine, Gas	N. W. Wheeler	115, 670
Pump or water-elevator, Rotary	T. J. Lovegrove	121, 973
Pump, Petroleum	J. Sparks	118, 496
Pump-piston	J. S. Follansbee and G. Doolittle	112, 438
Pump-piston	D. W. Bell	112, 768
Pump-piston	D. Johnson	119, 852
Pump-piston	A. H. Foe	120, 054
Pump-piston	J. H. Keene	120, 070
Pump-piston	W. Newcomb	120, 767
Pump-piston	J. Van Tassel	122, 082
Pump, Pneumatic	J. Powell	119, 641
Pump-regulator	S. H. Wheeler	118, 659
Pump, Rotary	I. Williams	111, 026

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Pump, Rotary	F. O. Deschamps	112, 429
Pump, Rotary	G. W. Putnam	112, 491
Pump, Rotary	H. P. Tenant	115, 254
Pump, Rotary	C. W. Isbell	115, 613
Pump, Rotary	C. E. Huston	118, 455
Pump, Rotary	L. Chapman	119, 011
Pump, Rotary	H. H. Ward	119, 482
Pump, Rotary	S. W. Kelly	120, 819
Pump, Ships	D. A. Dunham	113, 641
Pump, Siphon steam	T. O'Rorke	117, 450
Pumps, Regulating the discharge of water from	J. Mayher	110, 928
Pump, Steam	T. Harrington	110, 850
Pump, Steam	W. Baxter	113, 725
Pump, Steam	L. J. Knowles	113, 897
Pump, Steam	L. J. Knowles	114, 507
Pump, Steam	T. E. Button	119, 314
Pump, Steam	A. and G. Perry	121, 658
Pump, steam, Automatic	W. E. Prall	116, 751
Pump, Steam vacuum	I. H. Pattee and H. J. Graham	110, 933
Punch	R. J. Mullen	120, 162
Punch and eyeleting-machine	E. Shaw	113, 211
Punch, awl and knife, Combined	H. S. Holmes and D. Williams	114, 820
Punching and eyeleting machines, Mechanism for operating	C. H. Morse	111, 865
Punching and shearing machine, Combined	W. H. Ivens and W. E. Brooke	114, 297
Punching-machine	J. Rhodes	112, 381
Punching-machine	E. R. Brown and J. Long	115, 156
Punching-machine	D. A. Faulkner	116, 288
Punching-machine	C. Keniston	116, 323
Punching-machine	J. Duff	116, 420
Punching-machine	G. W. Lewis	116, 726
Punching-machine	W. H. Van Cleve	119, 900
Punching-machine, Hydraulic	R. Livingston	120, 203
Purifier, condenser, &c., for gas-works	A. Fulton	111, 737
Pyrometer	W. H. Bailey	112, 106
Pyroxyline, Dental plate from	I. S. Hyatt, J. W. Hyatt, and J. A. Perkins	113, 055
Q.		
Quadrat	W. Donald	110, 752
Quill for silk	I. Dimock	117, 612
Quilting-machine	W. J. Tate	118, 404
R.		
Race-course toy-bank	J. Hall	118, 011
Rack, Boot	J. K. Otis	117, 321
Rack, Card	L. C. Prindle	119, 995
Rack, Card	C. A. Wall	120, 134
Rack, Clothes	H. M. Andrus and J. H. Cleveland	113, 121
Rack, Clothes	C. H. Wolcott	118, 416
Rack, Clothes	A. G. Schmidt	120, 671
Rack, Clothes	D. Miller	121, 953
Rack, Curtain	F. and W. Schme	119, 536
Rack, Dish	W. H. Duffett	113, 862
Rack, Hay	F. L. Nagler	111, 138
Rack, Hay	J. Mandigo	119, 627
Rack, Lumber	R. B. Woodcock	114, 897
Rack, Milk	W. Boswell	118, 098
Rack, Pool-ball	H. W. Collender	116, 561
Rack-pulley shade-fixture	W. Johnson	114, 825
Racks, car basket, Mode of attaching	M. Tower	116, 891
Rack, Shade	H. Lull	118, 253
Rack, Towel	O. Plummer	118, 970
Radiator, Steam	J. L. Frisbie	111, 192
Radiator, Steam	G. W. Blake	111, 721
Radiator, Steam	E. M. Bosley	114, 522
Radiator, Steam	V. D. Anderson	114, 902
Radiator, Steam	E. P. Doyen	122, 000
Raft-clip	I. Corwin	117, 387
Rafting-dog	G. E. Dowling and S. F. Cone	117, 752
Rag-cutting machine	E. Wilkinson	118, 767
Rags for carpets, Device for slitting and looping	L. C. Palmer	121, 124
Rags for carpets, Implement for slitting and joining	M. Green	114, 004
Railing, Iron	S. S. Bent	112, 887
Rail-joint	W. F. Grassler	114, 433
Rail-joint, Adjustable	J. R. Sullwant	120, 547
Rail joint or splice	J. C. Rupp	116, 494
Rail-lifter	A. Wilson	118, 413
Rail, Railroad	E. Williams	115, 142

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Rail, Railroad.....	A. McKenney.....	116, 975
Rail, Railway.....	G. C. Morgan.....	115, 765
Rail, Railway.....	A. McKenney.....	117, 658
Rail, Railway.....	R. S. Sanborn.....	117, 933
Rail, Railway.....	J. Maitland.....	120, 295
Rail, Railway.....	R. S. Sanborn.....	121, 732
Railroad-car starter.....	A. Amory.....	115, 266
Railroad-rails, Patch for.....	J. T. Barnett.....	113, 004
Railroad-spike.....	H. Fostrick.....	111, 096
Railroad-spike.....	C. Gaylord.....	113, 510
Railroads, Signaling device for.....	G. F. Folsom.....	119, 456
Railroads, Watering device for.....	D. Cheney.....	121, 991
Railroad-ticket.....	J. T. Smith.....	111, 692
Railroad-trains, Apparatus for establishing electrical communication in.....	P. D. Prud'homme.....	112, 957
Rails, railway, Bearing-plate for.....	E. Myrick.....	118, 260
Railway.....	H. T. Humphreys.....	116, 059
Railway.....	W. C. Bibb.....	118, 330
Railway.....	D. Fitzgerald.....	121, 605
Railway-bridge signal-apparatus.....	T. S. Hall.....	113, 425
Railway-car platform.....	R. A. Cowell.....	110, 901
Railway-car safety-apparatus.....	K. E. Holmes.....	119, 766
Railway-cars, Dust-shield for.....	W. M. K. Thornton.....	119, 545
Railway-cars, Grain-door for.....	M. H. Card and L. Safford.....	118, 339
Railway-cars, Track-cleaner for.....	M. C. Boyer.....	116, 673
Railway cattle-gate.....	W. A. Pugh and J. F. Bigger.....	119, 178
Railway cattle-guard.....	C. Caton.....	117, 600
Railway-crossing.....	G. W. Billings.....	120, 933
Railway-crossing.....	J. Wood.....	121, 836
Railway, Elevated.....	J. B. Newbrough.....	116, 740
Railway, Elevated.....	J. B. Newbrough.....	121, 538
Railway for loading vessels, Swinging.....	J. L. Cheesman.....	121, 333
Railway freight-car.....	T. R. Timby.....	120, 552
Railway, Marine.....	J. H. Gosline.....	119, 345
Railway, Portable.....	T. Bootsman.....	112, 893
Railway-rail and chair.....	W. E. Winby.....	112, 998
Railway-rail chair.....	W. H. Staats.....	110, 797
Railway-rail chair.....	S. M. Guest.....	112, 805
Railway-rail chair.....	G. E. Jarris.....	119, 520
Railway-rail chair.....	A. P. Lord.....	119, 624
Railway-rail chair.....	T. Donahy.....	120, 421
Railway-rails, Plant for repairing.....	H. Baines.....	115, 148
Railway-rails, Roll for patching.....	H. Baines.....	115, 149
Railway-rails to iron ties, Mode of securing.....	J. Newton.....	121, 956
Railways, Automatic signaling-apparatus for.....	D. W. Brown and C. A. Campbell.....	117, 598
Railways, Construction-train for.....	H. Baines.....	118, 667
Railway-signal, Automatic.....	H. S. Evans.....	118, 223
Railways, Safety-frog for.....	W. M. Shawen.....	118, 285
Railway-switches, Apparatus for operating.....	J. Alcorn.....	113, 002
Railway-switch stand and lock.....	A. W. Cram.....	119, 124
Railway-ties, Machine for dressing.....	J. P. Dirner.....	119, 829
Railway-track gauge.....	W. S. Huntington.....	114, 563
Railway-truck, Shifting.....	P. H. McWilliams.....	112, 826
Rain-water cut-off.....	B. Rein.....	118, 054
Raising sunken vessels, Device for.....	T. Collier.....	119, 742
Raisin-seeder.....	W. Curtis, jr.....	114, 417
Raisin-seeder.....	G. Pratt.....	115, 893
Raisin-seeder.....	J. Harrington.....	119, 704
Rake and fork, Hay.....	T. W. Pierce.....	117, 201
Rake, Harvester.....	W. A. Wood.....	110, 716
Rake, Harvester.....	G. W. Hines.....	111, 344
Rake, Harvester.....	F. B. Scott.....	112, 289
Rake, Harvester.....	S. T. Holly.....	112, 341
Rake, Harvester.....	J. P. Manny.....	112, 363
Rake, Harvester.....	D. R. Kinyon.....	112, 605
Rake, Harvester.....	J. P. Manny.....	112, 940
Rake, Harvester.....	J. P. Manny.....	112, 941
Rake, Harvester.....	A. McArthur.....	113, 321
Rake, Harvester.....	C. Wheeler, jr.....	113, 474
Rake, Harvester.....	O. B. Colcord.....	113, 632
Rake, Harvester.....	J. Barnes.....	114, 094
Rake, Harvester.....	J. P. Manny.....	114, 165
Rake, Harvester.....	J. P. Manny.....	114, 166
Rake, Harvester.....	B. Illingworth.....	114, 441
Rake, Harvester.....	D. A. Kellogg.....	114, 827
Rake, Harvester.....	J. Harris.....	115, 052
Rake, Harvester.....	G. H. Weller.....	115, 141
Rake, Harvester.....	J. M. Rosebrooks.....	117, 687
Rake, Harvester.....	R. Emerson.....	119, 130
Rake, Harvester.....	J. M. Rosebrooks.....	120, 777

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Rake, Harvester.....	J. Henerman.....	121, 247
Rake, Hay.....	G. Notman.....	117, 917
Rake, Horse.....	B. Webb.....	113, 121
Ram for naval warfare.....	W. Brown.....	119, 566
Ram, Water.....	F. Miller.....	120, 761
Range.....	P. Rollhaus, jr.....	115, 642
Range, Cooking.....	J. A. Price.....	111, 870
Range, Cooking.....	G. W. Walker.....	113, 952
Range, Cooking.....	C. J. Wood.....	115, 800
Range, Cooking.....	J. H. Burtess.....	116, 681
Range, Cooking.....	E. Mingay.....	117, 096
Range, Cooking.....	E. F. Rogers.....	120, 459
Range, cooking, Portable.....	J. Vane.....	119, 066
Range, cooking, Steam.....	J. Ashcroft.....	113, 241
Range, Fire-place.....	W. Sanford.....	115, 644
Ranges and stoves, Attachment for.....	D. Stuart.....	112, 089
Range-setting.....	A. F. Barry.....	117, 727
Ratlines, Attachment for rigging.....	J. C. Knowlton.....	120, 820
Ratlines, Attachment for.....	J. P. Manton.....	116, 848
Rattan for chair-seats, &c., Preparing.....	G. A. Watkins.....	121, 919
Rattan for chair-seats, Preparing.....	G. A. Watkins.....	119, 099
Raw hides, Process of treating.....	B. F. Wright.....	122, 142
Razor-strop.....	O. B. Howard.....	117, 421
Razor-strop.....	W. M. Green.....	117, 621
Reading and drawing case.....	W. F. Baade.....	118, 180
Reading-desk, Pendent.....	G. F. Perkins.....	121, 810
Reamer.....	J. K. Derby.....	116, 418
Reamer, Adjustable.....	E. H. Adgate.....	111, 296
Reamer for oil-wells.....	W. Forker.....	117, 615
Reaping-machine.....	G. H. Clark.....	114, 408
Reaping-machines, Gleaner-rake for.....	J. V. Bryson.....	118, 430
Receptacles for stationery articles, &c.....	W. P. Baade.....	111, 717
Reciprocating into rotary motion, Apparatus for converting.....	F. Wagner.....	112, 991
Record-book.....	H. Arden.....	117, 240
Rectifier and filler, Combined.....	J. C. Schnell.....	114, 610
Rectifying alcoholic spirits, Apparatus for.....	J. R. Neill.....	119, 943
Rectilinear into rotary motion, Method of converting.....	J. G. Harroun.....	117, 250
Rectum-bathing apparatus.....	C. B. Veronee.....	116, 895
Reducing or pointing wire, Machine for.....	A. G. Hotchkiss.....	113, 885
Reed for organs and melodeons.....	A. Newell.....	112, 483
Reed-organ.....	G. W. Woodruff.....	113, 714
Reed-organ.....	A. K. Hebard.....	121, 246
Reed-organ.....	G. W. Woodruff.....	121, 700
Reed-organ bellows.....	J. R. and S. R. Perry.....	115, 635
Reefing and furling sails, Device for.....	W. Spear.....	111, 694
Reefing sails, Apparatus for.....	A. G. Crossman.....	113, 983
Reel and rake, Harvester.....	W. H. Seymore.....	111, 483
Reel, Clothes-line.....	C. H. Staffin.....	121, 135
Reel, Flour-bolting.....	A. L. Williams.....	111, 290
Reel, Flour-bolting.....	D. Shamp.....	114, 980
Refined cast iron, steel, and malleable iron, Producing.....	J. W. Middleton.....	110, 990
Refining iron, reducing ores, &c.....	J. F. Allen.....	112, 003
Reflector.....	F. P. Doyle.....	111, 919
Reflector for lamps, Adjustable.....	A. Hays.....	117, 282
Reflector for locomotive head-lights.....	C. S. Lee and W. M. Baldwin.....	117, 089
Refrigerating and ventilating apparatus.....	B. F. Smith.....	117, 572
Refrigerating-apparatus.....	J. Gravenstine.....	117, 408
Refrigerator.....	D. Cromwell.....	109, 508
Refrigerator.....	J. H. Lester.....	111, 950
Refrigerator.....	A. J. Chase.....	112, 547
Refrigerator.....	J. H. Welsh.....	112, 659
Refrigerator.....	C. L. Anderson and A. Bogardus.....	115, 804
Refrigerator.....	P. McBride.....	115, 879
Refrigerator.....	C. E. Munroe.....	116, 344
Refrigerator.....	J. R. Torres.....	117, 221
Refrigerator.....	J. Matthews.....	118, 037
Refrigerator.....	H. Davis and R. Alden.....	119, 453
Refrigerator.....	J. B. Webster.....	119, 548
Refrigerator.....	J. W. Fisher.....	120, 867
Refrigerator.....	W. Bogk.....	120, 934
Refrigerator.....	A. W. Almqvist and E. G. Conradson.....	121, 037
Refrigerator.....	J. F. Dick.....	121, 280
Refrigerator.....	J. P. Oeth.....	121, 655
Refrigerator.....	A. J. Chase.....	121, 751
Refrigerator.....	J. Rohrer.....	121, 899
Refrigerator and water-cooler.....	A. Iske.....	113, 056
Refrigerator, Milk.....	J. Chappel.....	120, 491
Refrigerator, Revolving.....	C. Avery.....	119, 443
Register, Air.....	E. A. Tuttle.....	120, 912
Register, Air.....	H. F. Hayden.....	121, 942

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Register, billiard-game, Electro-magnetic	G. A. Webster	118, 082
Register, Counting	C. W. Pile	113, 794
Register, Counting	A. P. Atkinson	120, 609
Register for gas-meters	H. H. Edgerton	118, 221
Register, Grain-weighing	W. H. Baxter	113, 133
Register, Hot-air	H. M. Phinney	113, 447
Register, Hot-air	W. Young	114, 247
Register, Hot-air	D. A. T. Gale	116, 294
Register, Hot-air	J. W. McGlashan	116, 337
Register, Land-measuring	W. Trasius	115, 186
Register, Passenger	M. Springwoter	114, 060
Regulator, Feed-water	N. Nolan	121, 122
Regulator for exhausters in gas-works	A. S. Cameron	119, 505
Regulator for gas-burners	E. Lawlor	117, 305
Regulator, Gas	J. B. Coolridge	120, 416
Regulator, Steam and water pressure	N. C. Locke	113, 069
Rein and shaft support	J. P. Crutcher and T. Y. Vancleave	120, 561
Rein-holder	W. Barstow	110, 725
Rein-holder	J. R. Ackenback	112, 524
Rein-holder	H. D. Page	118, 775
Rein-holder	C. A. Messenger	120, 389
Rein-supporter	R. Townsend	111, 279
Relishing-machine	D. G. Arnold	117, 032
Remedies to the ear, Device for applying	J. Fanyon	115, 944
Remedy for worms	A. E. Wright	115, 407
Removing lime, dirt, and sediment from boiling liquids, Device for	A. J. Simmons	115, 367
Removing runners from strawberry-vines, Machine for	S. H. Warren and W. H. Defrees	117, 705
Reservoir-stove	J. V. Vroothan and J. E. Clute	122, 084
Resin and gum, Extracting, from wood	W. Adamson	117, 135
Rest for cloth-shearing machines	M. Craven	121, 760
Restoring writing or printing on charred paper, Process for	J. V. Z. Blaney	121, 321
Retainer for holding pressed and molded cigar-bunches	W. D. Brewer	118, 428
Retaining-strap for bending timber	L. E. Minott	117, 664
Retort for producing bisulphide of carbon	T. Sim	112, 390
Retort, Gas	D. Davison	112, 557
Retort, Gas	G. W. Harris	112, 593
Retort, Gas	J. D. Higgins	118, 936
Return-flue boiler-furnace	C. J. Harris	114, 437
Revenue-stamp	F. Brooks	121, 986
Revenue-stamp protector	R. M. Smith	120, 786
Revenue-stamps, &c., Machine for canceling and severing	P. W. Brown and J. Delarue	118, 511
Reverberating reed-cell for organs or melodeons	C. W. Small	113, 940
Rheostat or resistance-coil	G. Little	122, 267
Rheumatism, &c., Medical compound for cure of	H. Sawyer	114, 717
Rheumatism, &c., Medical compound for cure of	J. Keiser	120, 074
Rheumatism, &c., Medical compound or liniment for	J. W. Helms	119, 144
Rheumatism, Medical compound for the cure of	R. Gilkinson	111, 195
Rheumatism, Medical compound for the cure of	C. F. Washburn	120, 802
Rheumatism, Medical compound or salve for the cure of	J. Mickel	120, 451
Rheumatism, Medical compound for treating	W. Curless	117, 870
Rheumatism, Medicine for treating	A. Whitney	118, 766
Ribbon and velvet case	R. L. Newton	118, 968
Ribbons, &c., Machine for blocking	G. Vincent	112, 676
Ribbons, laces, &c., Case for	S. Whitaker	113, 827
Rice cleaning and polishing machine	J. N. White	118, 889
Rice hulling and polishing machine	L. E. Lee	118, 251
Rice, wheat, corn, &c., Process and apparatus for treating	R. B. Fitts	117, 271
Riddle and thrashing-machine	D. Murphy	111, 766
Riddle or sieve	W. Page	121, 192
Riding-saddle	F. M. Simpson	121, 813
Rigging, Device for worming and serving	J. W. Bowden and J. D. Leach	116, 261
Ring-driver	A. Fisher	116, 290
Ring, Finger	H. P. Richmond and T. E. Carpenter	114, 856
Ring, Hose	G. Sewell	111, 981
Ring, Spinning	W. T. Carroll	115, 160
Ring-spinning machine	J. H. Sawyer	113, 575
Ripping-tool	J. O. Woods	117, 588
Rivers, Apparatus for removing sand-bars from	J. Halliday	117, 772
Rivet	W. Butterfield	115, 432
Riveting-apparatus	J. Berry	118, 328
Riveting latch knitting-needles, Method of	C. P. S. Wardwell	121, 562
Riveting-machine	W. Sellers	111, 575
Rivets, Machine for feeding, and inserting them in shoes	L. A. Cook	112, 554
Road-bed	N. B. Heafer	112, 034
Road-dresser	S. D. Reynolds	121, 129

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Roads, Machine for grading and ditching	G. Trump	119,064
Roads, Machine for rolling and ramming	A. Q. Ross	118,395
Road-wagon, Steam	C. W. Hermance	111,644
Road-wagon, Steam	C. F. Thomas, A. J. and J. A. Craig, and J. W. Hathaway.	115,786
Rochelle salts and borax, Manufacture of	V. G. Bloede	112,316
Rock-channeling machine	M. C. Bullock	120,182
Rock-drilling apparatus	L. Nelson	121,120
Rock-drilling machine	J. W. Spangler	114,617
Rock-drilling machine	G. Frisbee	115,187
Rock-drilling machine	N. W. Robinson	115,641
Rock-drilling machine	C. Bernard	119,215
Rock-drilling machine	N. Ball	121,315
Rock-drilling machine	T. H. Coate and L. H. John	121,590
Rocker for cradles, &c.	R. A. Jackson	116,061
Rocket	C. E. Masten	119,630
Rocking-apparatus	J. N. Fowler	121,094
Rocking-chair, Swivel	J. W. H. Doubler	116,571
Rocking grate-bar	J. Jones	115,482
Rocking-horse	E. Kirsch	121,945
Rocking sofa and bedstead, Combined	W. McArthur	111,365
Rock-quartz, &c., Apparatus for grinding	W. J. Menzies	119,469
Rocks, Machinery for drilling	C. Burleigh	113,850
Rocks, submarine, Method of removing	A. W. Von Schmidt	119,902
Rod, Connecting	W. G. Freeman	110,842
Roll, Elastic	W. H. Towers	112,988
Roller and marker for planting	F. Roth and B. Fürst	115,900
Roller-bushings, composition, Manufacture of	F. B. Torrey	113,114
Roller-cleaner for spinning-machines	L. Cheetham	120,037
Roller, Field	J. M. Kelley	118,616
Roller, Field	G. H. Dow	120,950
Roller, Field	A. Rogers	121,424
Roller for moving heavy bodies, Portable	J. R. Anderson	113,830
Roller, Land	J. T. Hudnet and H. W. Mathews	113,169
Roller, Land	W. Wimer	117,497
Roller, Land	W. W. Andrew	119,294
Roller, Land	J. Cole	121,157
Rollers and bearings, Device for reducing friction on	E. Dummer	118,703
Roller-skate	M. H. Kimball	110,858
Roller-skate	P. R. Borein	114,398
Roller-skate	A. T. Covell	116,161
Roller-skate	G. Vincent	116,648
Roller-skate	G. S. Curtis	116,690
Roller-skate	J. L. Boone	120,147
Roll for dressing-frames, Composition	R. Collier	117,985
Roll for forming horseshoe-blanks	W. Acheson	112,668
Roll for hair-dressing	E. Shnautz	111,388
Roll for husking corn	P. Phillip	112,735
Roll for rolling horseshoe-bars	E. Cate	113,255
Roll for rolling umbrella connections	E. Wight	114,377
Rolling and felting hat-bodies	J. Crisp and V. V. Dodd	119,970
Rolling-bed	J. Krisch and C. Thoener	113,307
Rolling iron, steel, &c., Manufacture of metallic rolls for.	R. Sleeth	115,649
Rolling-pin	W. Thomas	119,062
Rolling-stock of railways	J. W. Grover	117,535
Rolling-tapering forms, Machine for	H. Kellogg	119,521
Rolls, Construction of	J. V. Woodhouse	121,443
Roof	N. G. Northup	117,104
Roof	J. M. Price	117,327
Roof, Composition	E. Westermayr	122,296
Roof, Curb	D. Newton	118,261
Roof, Fire-proof	I. Hodgson and W. H. Brown	115,471
Roof-gutter	J. F. Lockwood	116,072
Roofing	R. Sanderson	120,900
Roofing	O. J. Pierce	121,063
Roofing-composition	E. P. Newton	114,325
Roofing, Composition	W. Kinsey	118,025
Roofing, Composition	J. R. Melvin	110,665
Roofing compound	C. L. Fowler	118,850
Roofing-fabrics, Apparatus for making	D. W. McConnell and W. W. Pierce	114,174
Roofing-felt, Machinery for making	J. B. Melvin	116,470
Roofing, Fire and water proof	C. W. Chaffee	117,601
Roofing, Fire-proof	J. B. Cornell	114,769
Roofing, Fire-proof	J. B. Cornell	117,384
Roofing, flooring, pipes, &c., Process and apparatus for the manufacture of.	J. K. Griffin	121,166
Roofing-machine	C. L. Fowler	120,153
Roofing, Machine for the manufacture of	D. Hitchcock and W. Gibbs	114,139
Roofing, Mastic	J. Cipperly	113,628
Roofing, Metallic	G. W. Bliss	111,307

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Roofing, Metallic.....	J. C. Wands.....	114, 733
Roofing, Metallic.....	H. D. Cook.....	117, 605
Roofing, Metallic.....	W. S. Belt.....	117, 855
Roofing, Metallic.....	J. Siddons.....	120, 829
Roofing, Metallic.....	J. C. Wands.....	121, 438
Roofing, paving, &c., Composition for.....	W. M. Stuart.....	118, 296
Roofs, pavements, &c., Composition for.....	S. G. Morrison.....	117, 196
Root-cutter and shovel-plow, Combined.....	G. Trump.....	120, 839
Root or tonic beer.....	B. Bates.....	113, 617
Rope, straw, Machine for making.....	C. E. Donnellan.....	114, 535
Rope-way, Endless.....	A. S. Hallidie.....	121, 776
Rose head, Sprinkling.....	W. Westlake.....	119, 550
Round belts, Machine for cutting.....	J. C. Foster.....	115, 949
Rounder for reins.....	D. Webber.....	116, 123
Roving-frame.....	E. P. Morgan and J. H. McMullan.....	120, 209
Roving in spinning-machines, Mechanism for delivering.....	L. W. Felt.....	120, 256
Rowing-machine.....	W. B. Curtis.....	116, 417
Rubber and brush.....	A. Charl.....	113, 258
Rubber and other vulcanizing gums, Treating.....	P. Finley.....	116, 825
Rubber, Apparatus for vulcanizing.....	H. W. Weicker.....	112, 755
Rubber belting, Manufacture of.....	A. O. Bourne and I. F. Williams.....	113, 486
Rubber compound for bearings, &c.....	P. J. Kelly.....	116, 322
Rubber cushions for billiard-tables, Manufacture of.....	M. Delaney.....	116, 819
Rubber floor-cloth, &c., Manufacture of.....	H. W. Joslin.....	111, 549
Rubber for dental plates, &c., Vulcanizing.....	C. M. Kelsey.....	121, 174
Rubber for steam-packing, &c., Oil-proof.....	J. M. Flagge.....	118, 004
Rubber, gutta-percha, &c., Bleaching.....	J. Helm, jr.....	115, 202
Rubber, Hand-washing.....	E. R. Norny.....	111, 769
Rubber, Manufacture of.....	J. Greacen, jr.....	114, 287
Rubber paint.....	S. Truscott.....	113, 368
Rubber, Reducing.....	W. N. McCartney.....	114, 576
Rubber roller for paper-machines.....	R. A. Kelty.....	111, 751
Rubber rolls, Manufacture of.....	J. Greacen and E. L. Perry.....	111, 449
Rubber tire for steam-carriages.....	L. Sterne.....	112, 295
Rubber veneer.....	B. D. Stevens.....	114, 218
Rubber waste vulcanized, Disintegrating.....	J. H. Smyser.....	122, 289
Rudder-attachment.....	J. H. Moore and J. B. Clark.....	119, 874
Rudder for vessels.....	A. De Man.....	119, 584
Rudder, Ships.....	L. P. Thurston.....	115, 991
Rule-joint.....	D. H. Stephens.....	114, 987
Ruler.....	H. S. Ball.....	112, 406
Ruler.....	L. Feusier, jr.....	118, 225
Ruler.....	L. Feusier, jr.....	118, 226
Ruler, Adjustable.....	E. Bostock.....	115, 019
Ruler-attachment for drawing-boards.....	T. Bergner.....	113, 726
Ruling-machine.....	D. W. Landvoigt.....	122, 262
Running-gear for wagons, Iron.....	J. Ball, sr.....	119, 106
Rut-leveler.....	C. Marshall.....	110, 663
S.		
Saccharine liquids, Treatment of.....	G. L. Rundle.....	116, 102
Saccharine liquids, Treating.....	A. Schreiber.....	116, 504
Saccharine matter, Defecating and bleaching.....	H. H. Bond.....	118, 427
Saccharine matters, fermentable, Preparation of.....	W. Garton.....	118, 523
Sack, Coal-delivering.....	W. S. Shackleton.....	113, 353
Sad and crimping iron.....	C. Anderson.....	112, 105
Sad and fluting iron.....	W. D. Robertson.....	112, 282
Sad and fluting iron.....	F. Myers.....	112, 482
Sad and fluting iron.....	J. E. Swift.....	116, 115
Sad and fluting iron.....	J. K. Gulihur.....	118, 854
Sad and fluting iron combined.....	T. Myers.....	119, 471
Saddle-box for relieving pressure from rolls in rolling-mills.....	W. H. Brough.....	119, 692
Saddle-girth.....	S. W. Baker.....	121, 268
Saddle, Riding.....	G. F. Schmidt.....	115, 772
Saddle-tree.....	E. H. Dunn.....	121, 282
Saddle-tree.....	G. Woods.....	116, 785
Sad-iron.....	H. R. Ives.....	110, 919
Sad-iron.....	M. F. Potts.....	113, 448
Sad-iron.....	R. McGrath.....	114, 698
Sad-iron.....	P. W. Weida.....	118, 311
Sad-iron.....	J. C. Maxey and T. Lewis.....	118, 623
Sad-iron and ruffler.....	W. Banzett.....	117, 725
Sad-iron, Fluting.....	E. A. Franklin.....	120, 869
Sad-iron handle.....	A. Tait.....	120, 010
Sad-iron holder, Composition.....	W. B. Coates.....	117, 515
Sad-irons, &c., Non-heating handle for.....	W. H. Towers.....	112, 514
Sad-iron, Self-heating.....	J. Melder.....	120, 450
Sad-irons, Method of coating.....	W. H. Towers.....	110, 878

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Safe	S. S. B. Lewis and W. H. Sterling	115, 221
Safe	G. H. Ireland	115, 479
Safe	D. Fitzgerald	121, 503
Safe	J. Farrel	121, 710
Safe, Burglar-proof	E. K. Hall	113, 877
Safe, Burglar-proof	J. W. Campbell, sr	114, 107
Safe, Burglar-proof	E. K. Hall	115, 728
Safe, Burglar-proof	J. Farrel	116, 287
Safe, Burglar-proof	E. K. Hall	116, 954
Safe, Burglar-proof	L. Lillie	117, 899
Safe-door	D. E. S. Covert	116, 686
Safe-door	D. E. S. Covert	116, 688
Safe-doors, Device for operating	G. L. Damon and H. B. Tripp	115, 714
Safe-doors, Device for operating	W. Terwilliger	117, 016
Safe, Fire-proof	W. H. Short	116, 227
Safe, Kitchen	T. Coltrane	116, 415
Safe, Meat	A. Knoche	115, 067
Safe, Milk	J. W. Case	121, 155
Safe, Protecting	S. M. Lillie	117, 435
Safe-protector, Electro-magnetic	W. Duncan	117, 713
Safe, Provision and milk	B. H. Martin	119, 165
Safes, Interlocked conical bolt for	J. Farrel	120, 577
Safes, Lock-spindle for	C. O. Yale	119, 258
Safes, Self-locking screw-bolt for	C. O. Yale	115, 007
Safes, vaults, and buildings, Telegraphic protection for	W. B. Watkins	111, 408
Safety-matches, Manufacture of	L. O. P. Meyer	111, 075
Safety-pin	W. H. Brock	121, 485
Safety trace-fastener	J. F. Morley	117, 195
Sail-hank	W. E. Meyer	114, 459
Sails, Mode of reefing	J. I. Mason	115, 972
Sails, Reefing	J. E. Wortham	120, 806
Salt, Apparatus and process for the manufacture of	A. C. Twining	119, 252
Salt, Apparatus for drying	G. C. Briggs	115, 564
Salt, Apparatus for the manufacture of	R. G. Leckie	116, 970
Salt-cellar	J. T. Walker	111, 281
Salt for culinary use, Apparatus for preparing	F. Baker	122, 201
Salt from brine, Manufacture of	S. D. Gilson	113, 045
Salt, Manufacture of	J. R. Buchanan	113, 250
Salt, Preparing	F. Baker	122, 109
Salve, Mercurial	W. Wheelock	114, 375
Sample-frame for merchants	J. S. Monroe	118, 389
Sand and gravel, Apparatus for drying	A. H. Bauman	121, 746
Sand and seed ejector	M. Christiansen	115, 164
Sand, Apparatus for tempering	J. C. Broadmeadow	112, 896
Sand, gravel, &c., Apparatus for heating and drying	H. R. Johnson	115, 865
Sand or emery paper	G. C. Taft	111, 700
Sand-papering machine	J. Barker	115, 414
Sap-bucket cover	R. Marshall	119, 779
Sap-bucket cover	D. and E. Smith	119, 952
Sap-bucket holder	A. Franklin	119, 024
Sap-spout	C. C. Post	117, 326
Sap-spout	C. C. Post	117, 457
Sap-spout	W. S. Gilmore	117, 767
Sash-balance	J. M. Connel	111, 728
Sash-balance	C. Van Hoosen	114, 729
Sash-balance	G. W. Bishop	115, 418
Sash-balance	L. Goodwin	116, 302
Sash-balance	G. E. Smith	120, 543
Sash-balance	H. Smith	122, 288
Sash-cord fastener	W. N. Jackson	111, 847
Sash-cord fastener	G. A. Wilbur	117, 227
Sash-cords, Clamping-device for	C. R. Rand	117, 205
Sashes, Device for operating	S. P. Rogers	118, 974
Sash-fastener	G. L. Bailey	115, 147
Sash-holder	J. Bloodgood	110, 728
Sash-holder	P. W. Gates	111, 339
Sash-holder	H. W. Drott	111, 524
Sash-holder	W. H. King and J. Rowland	111, 946
Sash-holder	W. M. Warren	111, 995
Sash-holder	J. W. Megaw	112, 268
Sash-holder	P. B. Hovey	112, 812
Sash-holder	J. B. Morgan	112, 833
Sash-holder	W. T. Bausmith	112, 886
Sash-holder	A. Thomson	112, 985
Sash-holder	B. M. Whiting	113, 123
Sash-holder	J. J. Diehl	113, 146
Sash-holder	J. F. Diuger	113, 275
Sash-holder	W. G. Jones and S. M. Rankin	113, 303
Sash-holder	M. Judd	113, 673
Sash-holder	G. W. Reisinger	113, 930
Sash-holder	W. Bacheller	114, 253

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Sash-holder	G. N. Kendall	114, 445
Sash-holder	W. R. Elliott	114, 541
Sash-holder	J. H. Morse	114, 842
Sash-holder	R. B. Hugunin	114, 942
Sash-holder	B. Wilmot	115, 260
Sash-holder	D. N. B. Coffin, jr	115, 822
Sash-holder	Z. Lockwood	115, 971
Sash-holder	R. R. Ball	116, 009
Sash-holder	C. M. Burns	116, 150
Sash-holder	J. M. Cowles	116, 162
Sash-holder	A. W. Pennington	116, 628
Sash-holder	H. R. Halsey	116, 706
Sash-holder	T. J. McCarver	118, 038
Sash-holder	J. F. Rickel	119, 050
Sash-holder	A. C. Faivre	119, 132
Sash-holder	G. B. Ransom	119, 534
Sash-holder	E. S. Wills	119, 730
Sash-holder	S. H. Shaw	120, 334
Sash-holder	A. V. Sanford	120, 540
Sash-holder	J. C. Hanna	121, 093
Sash-holder	C. T. Tessier	121, 138
Sash-holder	W. W. Lyman	121, 531
Sash-holder	T. R. and W. L. Hubbard	121, 785
Sash-holder	J. Court	121, 852
Sash-holder	F. Walker	121, 695
Sash-holder	R. M. Seldis	122, 063
Sash-holder and blind-opener combined	L. Gathmann	119, 457
Sash-holder for railroad-cars	A. Loeffelholz and A. Prier	113, 070
Sash. Machine for laying out	J. N. Kikendall	116, 602
Sash-pulley	A. Le Page	121, 178
Sash stop and lock	N. Thompson	120, 796
Sash-supporter	W. H. Brown	121, 701
Sash-tightener	W. E. Smith	120, 010
Sash-weights, Attachment for	F. Brady, jr	114, 523
Satchel, &c	F. C. Schmidt	117, 935
Saucer, dish, &c	J. Gibson, jr	117, 766
Sausage, Meat and vegetable	J. H. Zumstein	116, 389
Sausage-stuffer	C. Forschner	119, 700
Saw	T. Welham	110, 705
Saw	W. L. Gage	110, 966
Saw	E. Andrews	111, 164
Saw	H. Disston and T. O. Hill	111, 619
Saw	H. Disston	112, 227
Saw	J. E. Emerson	112, 569
Saw	J. E. Emerson	113, 992
Saw	J. E. Emerson	116, 421
Saw	P. Thompson	117, 944
Saw	M. W. Jeffords	118, 370
Saw	G. B. Green	118, 800
Saw	D. W. Riker	119, 998
Saw	W. L. Earing	120, 633
Saw	D. Sattler	121, 007
Saw	C. V. Littlepage	121, 950
Saw-blades, Machine for curving	B. S. Bishop	119, 813
Saw-collar	F. A. Huntington	122, 116
Saw-filer	J. A. Rau	120, 773
Saw-filing machine	C. P. Case	114, 921
Saw for sawing fret-holes in fan-sticks	J. W. White	119, 678
Saw for sawing stone	J. E. Emerson	113, 993
Saw-frame	H. S. Miller	115, 499
Saw-frame	H. S. Miller	115, 500
Saw-frame	W. Clemson	116, 269
Saw-frame	J. H. Graham	117, 769
Saw-frame	W. H. Sullenberger	120, 123
Saw-guide	A. Rittenhouse	114, 346
Saw-gummer	D. Huffman	112, 711
Saw-gummer	A. Stone and B. Holbrook	112, 979
Saw-gummer	W. Reed	118, 274
Sawing-machine	J. D. Matthews	111, 131
Sawing-machine	N. H. Bolton	112, 114
Sawing-machine	G. W. Lombard	112, 156
Sawing-machine	G. W. Braymer	112, 682
Sawing-machine	J. Felton	112, 794
Sawing machine	P. Jacobus	113, 057
Sawing-machine	W. W. and J. M. Waterbury	113, 375
Sawing-machine	P. F. and E. A. King	113, 531
Sawing-machine	S. S. Sherman and H. B. Gunn	113, 698
Sawing-machine	J. B. Sweetland	113, 703
Sawing-machine	P. Pryibill	113, 926
Sawing-machine	W. Steschult	113, 943
Sawing-machine	H. P. Ohm	115, 092

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Sawing-machine	J. Harris	115, 848
Sawing-machine	H. Beau	116, 539
Sawing-machine	I. Shepard	116, 877
Sawing-machine	C. Collins	117, 259
Sawing-machine	A. E. Smith	117, 340
Sawing-machine	C. O. Hansen	119, 139
Sawing-machine	J. Great	119, 701
Sawing-machine	J. A. Elston	120, 051
Sawing-machine	J. D. Culver	120, 500
Sawing-machine	W. M. Wright	121, 144
Sawing-machine	J. K. Milner	121, 396
Sawing-machine	J. B. Lewis	121, 636
Sawing machine, Scroll	G. Cook	114, 768
Sawing machine, Scroll	W. H. Dobson	114, 778
Sawing machine, Scroll	S. G. Masou	114, 835
Saw-jointer for circular saws	J. H. Stevenson	112, 296
Saw, Meat	P. J. Hogan and A. Sowden	114, 509
Saw-mill carriage	T. H. Russell	121, 664
Saw mill, Circular	S. M. Palmer	116, 625
Saw mill, Circular	L. C. Pattee	121, 466
Saw mill, Circular	M. W. Danks	122, 161
Saw, Pruning	P. Eberle	115, 834
Saw, Scroll	W. Gardner	113, 042
Saw, Scroll	H. H. Humphrey and H. Bickford	115, 210
Saws, Device for gumming and sharpening	J. B. Sweetland	118, 403
Saw-set	H. A. Harris	110, 650
Saw-set	G. W. May	116, 074
Saw-set	D. Jones	119, 462
Saw-set	E. Y. Clark	120, 243
Saw-set	D. Shaw	120, 542
Saw set and filer	T. L. Shaw	112, 970
Saw-sharpening machine	Z. Sperry	117, 827
Saws, Machine for sharpening	R. Hines and L. Beyer	116, 189
Saws, Machine for sharpening	R. Hines and L. Beyer	116, 190
Saws, Machine for sharpening	N. H. Bolton	120, 700
Saws, Method of attaching, to their arbors	G. W. Colborn	114, 926
Saw-table	P. Neeb	110, 671
Saw-teeth, Insertible	W. H. Ivens	114, 686
Saw-teeth, Machine for grinding	J. L. Otis	112, 838
Saw-teeth, Method of forming	C. V. Littlepage	121, 951
Saw-tooth swage	J. Lough	111, 953
Saw with detachable teeth	T. P. Marshall	112, 943
Scaffold	S. Hollabangh and T. W. Letts	111, 540
Scaffold	N. Martz	111, 660
Scaffold	J. Redick	118, 553
Scaffold, Extension	A. Sweet	111, 094
Scaffolding	J. D. Pettit	114, 034
Scaffolding, Adjustable	A. J. Heavner	118, 128
Scale-pans, Machine for forming	F. Meyer	122, 045
Scale, Platform	J. H. Truex	110, 696
Scale, Platform	M. Kennedy	113, 529
Scale, Platform	W. P. Goolman	115, 190
Scales, elastic measuring, Adjustable	B. E. Chassaing	120, 621
Scales for the construction of toothed gear, Proportional	J. Walker	112, 097
Scales from steam-boilers, Composition for removing	C. A. Sweet	119, 426
Scales, Hydrostatic	O. D. Hudson	112, 043
Scales, Platform	E. Sampson	121, 200
Scales, Tonic and diatonic mutation	J. H. Scott	121, 066
Scales, Weighing	F. Fairbanks and H. Paddock	111, 735
Scales, Weighing	G. Scott	116, 999
Scale, Weighing	D. D. Allen	114, 248
Scale, Weighing	H. P. Wheeler	114, 737
Scale, Weighing	W. Black	115, 419
Scarf	G. R. Dexter	113, 748
Scarf or neck-tie holder	J. Hayden and W. H. Hart, jr	119, 608
Scene-shifting for theatrical and analogous purposes, Method of	J. L. Peake	113, 202
School-apparatus, Panoramic	A. P. M. Jeffers	120, 072
School-desk joint	C. U. Crandall	114, 649
Scissors	R. S. Gladwin	116, 432
Scissors, Combination	E. Clapp	119, 918
Scissors, Holder for grinding	J. Harwood and F. L. G. Ames	118, 717
Scissors, Magnetic	E. Prevost and A. Rablat	119, 177
Scoop and sifter	J. Baker	111, 605
Scouring, washing, and wringing machine	W. H. Churchman	111, 176
Scraper	G. W. Bailey	121, 576
Scraper, Boiler-flue	H. Voelker	116, 118
Scraper, Pan	G. Scherer	119, 791
Scraper, Road	G. B. Garlinghouse	111, 338
Scraper, Road	W. T. Nichols	112, 835
Scraper, Road	H. B. Van Voorhis	113, 950

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Scraper, Road	W. S. Worley	120, 559
Scraper, Self-loading	A. P. Routt and J. J. Keeton	112, 287
Scrapers, Method of attaching handles to	E. C. Locke	111, 952
Screen, Ash	E. C. Jenkins, jr.	111, 126
Screen, Coal	E. G. Belknap	114, 753
Screen, Fire	A. Chesnutwood	117, 863
Screen for coal-gas purifiers	E. Duffee	121, 764
Screen, Sand	S. Holdsworth	112, 809
Screen, Sand	G. W. Fair	112, 911
Screen, Window	J. Hancock, jr.	112, 590
Screen, Window	B. Giroux	114, 543
Screw	D. R. Quick	115, 770
Screw and nut, Metal	H. G. Pearson	113, 557
Screw-bolt	F. Muttimer	121, 060
Screw-cap and ring for fruit-jars	J. L. Mason	115, 754
Screw-caps, Device for nicking	W. Hillhouse and G. W. Briggs	110, 761
Screw-cutting device	G. W. Brown and A. T. Gifford	119, 565
Screw-driver	M. W. Dillingham	111, 327
Screw-driver	H. L. Hildreth	112, 143
Screw-driver	J. P. Curtiss	115, 582
Screw for water-gauges	C. Tivan	115, 658
Screw-machines, Spindle for	D. B. Glines	116, 301
Screw-nozzle for liquid-packages	H. H. Rogers and G. F. Walter	118, 155
Screw-piles, Machines for sinking	W. S. Smith and W. Reuschel	111, 092
Screw-propeller	J. Cochrane	116, 414
Screw-propeller	M. Kolb	119, 155
Screw-propulsion	E. C. Gregg	112, 335
Screws, Die-stock for cutting	L. R. Faught	115, 291
Screws, female, Casting	W. D. Alford	121, 266
Screws, Machine for cutting	J. S. Atkinson	111, 899
Screws, Machine for cutting	J. M. Carpenter	113, 740
Screws, Machine for cutting	J. M. Carpenter	119, 916
Screws, Machine for making	L. Southworth, jr., and S. G. Cushing	116, 880
Screws, Machine for making	F. Curtis	120, 044
Screws, Machine for threading	D. M. Robertson and J. A. Bidwell	111, 572
Screw-taps	G. H. Fox	114, 935
Screw-threads on bolts, Machine for cutting	O. P. and L. W. Briggs	115, 009
Scrofula, liver complaint, &c., Medical compound for cure of	P. Fay, sr	113, 151
Scroll-saw	W. S. Dobson	111, 322
Scroll-saw	L. Miller	113, 907
Scroll-saw	T. L. Cornell and S. Whitlock	117, 987
Scroll-saw	B. D. Wallace	118, 498
Scroll-saw	J. Hird	119, 517
Scroll-saw	I. R. Ritter	120, 326
Scroll-saw guide	S. Idler	121, 373
Scroll-sawing machine	S. M. Young	111, 895
Scroll-sawing machine	J. S. Moseley	114, 180
Scroll-sawing machine	A. W. Mitchell	116, 208
Scroll-sawing machine	N. T. Edison	118, 796
Scroll-sawing machine	W. H. Dobson and W. H. Doane	121, 556
Scrubber and mop-head	W. H. Earnest	117, 997
Scuttle-fastening	T. J. Gifford	113, 759
Seythe-fastening	C. Hamler	117, 623
Seal-bolt	F. C. Hamilton	120, 060
Seal-bolt	F. C. Hamilton	120, 061
Seal for dip-pipe in gas-works	G. Douty	111, 439
Seal for dip-pipe in gas-works	G. Douty	111, 440
Seal for dip-pipes in gas apparatus	A. F. Havens	118, 608
Seal for hydraulic mains for gas-works	A. Odiorne	115, 634
Seal for hydraulic mains of gas-works	S. Trumbore	113, 946
Sealing and unsealing dip-pipes in hydraulic mains	W. E. Grenelle	117, 880
Seal-lock	W. Bohannon	112, 011
Seal-lock	F. W. Brooks and G. A. Everett	121, 987
Seal-locking bolt	G. R. Dunn	119, 333
Seal-skin, Preparing	L. Falkenau	116, 578
Seaming-machine	O. W. Stow	113, 944
Seat, Adjustable	L. Postawka	113, 342
Seat and top, Carriage	L. Z. Dodds	113, 504
Seat, Bracket	J. J. Wilson	113, 607
Seat, Buggy	E. T. Mithoff and J. W. Dann	111, 232
Seat, buggy, Adjustable	D. and N. Kroninger	120, 444
Seat, Carriage	S. P. Graham	115, 542
Seat, Folding	J. M. Swain	119, 060
Seat for chairs and stools	F. W. Dickerman	120, 632
Seat for horse-cars	M. T. Glynn and J. L. Goodman	119, 344
Seat for railway-cars, Adjustable	C. S. Buck and J. Lovett	117, 599
Seat for stores	D. Christian	116, 023
Seat for vehicles	D. R. Allen	111, 714
Seat for vehicles, Adjustable	R. E. Jones	113, 060
Seat for wagons, Spring	W. P. Elam	112, 695

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Seat for wagons, Spring	A. S. Newman	118, 385
Seat, Railroad-car	D. H. Chamberlain	116, 154
Seat, Railway-car	W. Crandall	110, 746
Seat, Railway-car	A. B. Dinsmore	119, 331
Seat, Railway-car	M. M. Martin	117, 553
Seat, Reversible	F. M. Hawkins	116, 590
Seat, Rustic	A. G. Hawkes	118, 802
Seat, School	D. I. Stagg	116, 369
Seats for wagons or sleighs, Fastening for	J. G. Knapp and J. F. Robertson	112, 469
Seat, Spring	J. W. Blakeney	118, 782
Seat, Spring, for vehicles	B. Hershey	118, 452
Seats, Railway-car	J. M. Allen	121, 145
Seat, Wagon	V. Myers	112, 834
Seat, Wagon	L. H. Bullock	115, 158
Seat, Wagon	J. A. and W. F. Dann	115, 583
Seat, Wagon	H. Wahlstedt	116, 119
Seat, Wagon	J. B. Foote	118, 919
Seat, Water-closet	B. J. Fitzhugh	119, 342
Seat, Water-closet	D. L. Hawkins	120, 276
Securing steel or iron pins in wood	R. Kitson	111, 947
Sediment-collector for steam-boilers	C. W. Deane	113, 405
Seed and fertilizer dropper	E. P. Harnish	118, 716
Seed-corn, Preparing	J. M. Petit	111, 845
Seed-drill and cockle-separator, Combined	J. E. Fletcher	111, 050
Seed-drilling machine	O. Hyde	113, 522
Seed-drill, manurer, and potato-digger, Combined	E. C. Hopping and E. A. Ely	111, 062
Seed-dropper	H. M. Smith	110, 688
Seed-dropper	J. H. Converse and J. K. Welter	119, 325
Seed-dropper	F. Sleight	120, 112
Seed-dropper	J. C. Vreeland	111, 992
Seeder	T. Vreeland	119, 992
Seeder	T. L. and G. Pierce	121, 809
Seeder and cultivator	J. T. Mott	111, 372
Seeder and cultivator	J. T. Trowbridge	114, 232
Seeder and cultivator, Combined	M. Baer	117, 361
Seeder and cultivator, Combined	W. D. Stroud	119, 285
Seeder and cultivator, Combined	J. W. Webb	120, 354
Seeder and cultivator, combined, Broadcast	L. Wight	112, 663
Seeder, planter, and cultivator, Combined	J. Bowman and W. G. Selby	115, 688
Seeding-machine	A. S. Rabbit	110, 620
Seeding-machine	J. Cozad	110, 634
Seeding-machine	D. S. Alvord and C. D. Hollis	110, 720
Seeding-machine	P. M. Gundlach	112, 336
Seeding-machine	J. E. Buxton	112, 541
Seeding-machine	S. O. Masters	120, 081
Seeding-machine	L. Wight and O. G. Ewings	122, 300
Seed-planter and fertilizer-distributor	J. Sample	119, 411
Seed-planter and guano-distributor	H. L. Tillery	110, 694
Seed-sower	G. A. Carman	111, 726
Seed-sower, Hand	T. Howell	113, 887
Seed-tube for corn-planters	L. Scofield	112, 741
Segment-patterns, Machine for cutting	J. Bean, jr.	116, 258
Seine, Fishing	R. Jeffrey	120, 974
Separating, concentrating, and amalgamating ores, Apparatus and process for	W. C. Shaw	116, 763
Separator, Electro-magnetic	A. H. Balch and W. D. E. Nelson	115, 561
Separator for gold-ores	H. Merrill	118, 379
Separator for thrashing-machines	C. Miller	113, 076
Settee, Folding	H. T. Morse	111, 371
Settee, Folding	W. C. Adams and W. B. Mayhew	115, 010
Settee, Folding	H. T. Morse	117, 315
Settee, Reversible	R. H. Paton	113, 087
Serving-reel	J. H. Westcott	111, 160
See-saw	S. E. Saul	116, 502
Sewage, &c., Deodorizing and purifying	C. Rawson, P. Oviden, J. Wyide, W. McCree, and H. Hill.	118, 485
Sewage, Treating	R. Weare	116, 515
Sewage, Treatment of, and manufacture of fertilizers	D. Forbes and A. P. Price	113, 416
Sewer-basin trap, Self-acting	M. K. Couzens	110, 829
Sewing and knitting machines, Table for	E. Chesterman	113, 741
Sewing and other machines, Treadle for	G. W. Miles	112, 616
Sewing-machine	W. H. Baker	110, 735
Sewing-machine	A. Helwig	111, 059
Sewing-machine	T. A. Macaulay	111, 129
Sewing-machine	W. A. Mack	111, 359
Sewing-machine	T. Garrick	111, 447
Sewing-machine	E. A. Kimball	111, 752
Sewing-machine	W. T. Smith	112, 189
Sewing-machine	W. C. Winters	112, 308
Sewing-machine	J. W. Dufour	112, 327
Sewing-machine	J. Bennor	112, 678

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Sewing-machine	W. Sidenberg	112, 745
Sewing-machine	G. Stackpole	112, 747
Sewing-machine	C. O. Parmenter	113, 291
Sewing-machine	T. W. Bracher	113, 391
Sewing-machine	A. S. Dinsmore	113, 407
Sewing-machine	M. Chase	113, 498
Sewing-machine	W. G. Beckwith	113, 724
Sewing-machine	G. Rehfuß	114, 197
Sewing-machine	J. A. and H. A. House	114, 294
Sewing-machine	G. L. Dulaney	114, 424
Sewing-machine	H. W. Little	114, 573
Sewing-machine	W. Sidenberg	115, 117
Sewing-machine	A. B. Bates	115, 151
Sewing-machine	H. G. Suplee and J. H. Mooney	115, 656
Sewing-machine	J. H. Lester	115, 872
Sewing-machine	G. W. Baker	115, 925
Sewing-machine	C. H. Willcox and C. Carleton	116, 520
Sewing-machine	C. H. Willcox and C. Carleton	116, 521
Sewing-machine	C. H. Willcox and C. Carleton	116, 522
Sewing-machine	C. H. Willcox and C. Carleton	116, 523
Sewing-machine	C. H. Willcox and C. Carleton	116, 753
Sewing-machine	S. S. Turner	116, 893
Sewing-machine	J. P. Sherwood	117, 002
Sewing-machine	C. Neckar	117, 101
Sewing-machine	J. J. E. and W. Pitt	117, 203
Sewing-machine	T. Crane	117, 262
Sewing-machine	W. H. Buker	117, 380
Sewing-machine	J. Ramsay, jr.	117, 459
Sewing-machine	J. V. D. Eldredge	117, 526
Sewing-machine	J. T. Jones	117, 640
Sewing-machine	E. P. West	117, 708
Sewing-machine	N. Meyers	117, 797
Sewing-machine	C. Stebbins	118, 067
Sewing-machine	W. O. Grover	118, 450
Sewing-machine	A. Moltz	118, 631
Sewing-machine	T. Lamb	118, 728
Sewing-machine	T. E. Decker	118, 913
Sewing-machine	F. E. Hahn	118, 928
Sewing-machine	A. and N. Barth	120, 614
Sewing-machine	T. J. Harper	120, 815
Sewing-machine	L. A. Merriam	121, 156
Sewing-machine	J. O. Hough	121, 369
Sewing-machine	M. H. Kernaui	121, 460
Sewing-machine	J. N. Wilkins	121, 477
Sewing-machine	G. Rehfuß	121, 896
Sewing-machine	J. B. Secor	121, 965
Sewing-machine	J. Fauning and E. Nugent	122, 113
Sewing-machine attachment for button-holes	W. Burnham	121, 328
Sewing-machine attachment. Set-screw for	E. Wilder	117, 357
Sewing-machine. Binder for	J. L. Coles	110, 740
Sewing-machine. Button-hole	W. Chicken and E. S. Moulton	120, 855
Sewing-machine case	O. Nauen	120, 055
Sewing-machine caster	T. T. Bishop and H. J. Merret	113, 135
Sewing-machine casters	C. F. Stafford and L. Stansberry	115, 779
Sewing-machine chair	S. W. Cozzens	114, 532
Sewing-machine cover	F. R. Wolfinger	117, 358
Sewing-machine. Electro-magnetic	G. Stevens and J. Hendy	111, 488
Sewing-machine. Electro-magnetic	D. M. Smyth	118, 651
Sewing-machine. Electro-magnetic	D. M. Smyth	118, 652
Sewing-machine. Electro-magnetic	G. M. Hopkins	121, 622
Sewing-machine feeding-mechanism	M. P. Carpenter	112, 016
Sewing-machine for boots and shoes	M. M. Rosinsky	114, 862
Sewing-machine for boots and shoes	C. Goodyear, jr.	116, 947
Sewing-machine for boots and shoes	E. P. Richardson	117, 297
Sewing-machine for boots and shoes	L. R. Blake	117, 586
Sewing-machine for boots and shoes	W. Wickersham	117, 709
Sewing-machine for boots and shoes	W. Dutchemin	121, 237
Sewing-machine for working button-holes	E. Moreau	110, 669
Sewing-machine for working button-holes	S. Clemminshaw	110, 739
Sewing-machine for working button-holes	W. Chicken	115, 163
Sewing-machine for umbrellas and parasols	W. J. Tate	113, 704
Sewing-machine. Hemming and tucking attachment for.	W. N. Martin	113, 903
Sewing-machine motor	W. C. Thornton and J. D. Cooley	111, 276
Sewing-machine motor	D. A. Constable and J. F. Riggs	115, 436
Sewing-machine needle	J. J. Sibley	112, 744
Sewing-machines, &c. Process for ornamenting	C. F. Mueller	118, 043
Sewing-machines. Attachment for	W. H. White	110, 810
Sewing-machines. Attachment for	S. M. Moschowitz	111, 876
Sewing-machines. Attachment for	E. S. Yeitzer	113, 610
Sewing-machines. Attachment for	H. Moschowitz	117, 537

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Sewing-machines, Attachment for.....	J. S. Alter.....	117, 716
Sewing-machines, Attachment for.....	G. A. Colton and S. P. Babcock.....	118, 109
Sewing-machines, Attachment for.....	G. A. Colton and S. P. Babcock.....	118, 110
Sewing-machines, Attachment for.....	W. A. Wells.....	118, 412
Sewing-machines, Attachment for.....	M. E. Antrim.....	118, 671
Sewing-machines, Attachment for.....	A. H. Bartlett.....	119, 496
Sewing-machines, Attachment for.....	A. H. Bartlett.....	119, 555
Sewing-machines, Attachment for.....	W. H. Lewitt.....	120, 887
Sewing-machines, Attachment for.....	S. O. Matteson.....	121, 293
Sewing-machines, Attachment for.....	A. H. Hewitt.....	121, 366
Sewing-machines, Band and edging guide for.....	E. Leavitt.....	116, 056
Sewing-machines, Baster-guide for.....	F. T. Grimes.....	111, 199
Sewing-machines, Binder for.....	J. L. Coles.....	112, 019
Sewing-machines, Binder for.....	J. L. Coles.....	112, 223
Sewing-machines, Binder for.....	W. Allebaugh and J. M. Cuffell.....	114, 387
Sewing-machines, Binder for.....	F. S. Judd and J. G. Powell.....	116, 195
Sewing-machines, Binder for.....	G. A. Colton and S. P. Babcock.....	118, 111
Sewing-machines, Binder for.....	H. M. Hall.....	120, 513
Sewing-machines, Binder for.....	B. Goldsmith.....	121, 356
Sewing-machines, Binding-attachment for.....	G. E. Dolton.....	116, 570
Sewing-machines, Binding-guide for.....	J. B. Secor.....	116, 761
Sewing-machines, Binding-guide for.....	W. T. Smith.....	121, 014
Sewing-machines, Bobbin-winder for.....	R. H. Smith.....	115, 124
Sewing-machines, Bobbin-winder for.....	T. M. Jenks.....	114, 442
Sewing-machines, Braid-guiding attachment for.....	E. C. Sproul.....	117, 344
Sewing-machines, Button-holing attachment for.....	S. J. Baird.....	117, 364
Sewing-machines, Caster for.....	B. F. Rider.....	112, 740
Sewing-machines, Caster for.....	H. Jones.....	115, 060
Sewing-machines, Caster for.....	F. H. Duncan.....	118, 117
Sewing-machines, Caster for.....	W. D. Hatch.....	119, 606
Sewing-machines, Caster for.....	G. K. Proctor.....	120, 098
Sewing-machines, Caster for.....	H. A. Skinner.....	120, 783
Sewing-machines, Check-lever for.....	J. B. Secor.....	121, 966
Sewing-machines, Clutch for feeding-mechanism for.....	E. McDonald and N. H. Cole.....	116, 618
Sewing-machines, Cord-guide for.....	H. Horn.....	112, 810
Sewing-machines, Cording-attachment for.....	W. H. Fowler and W. Pettingell.....	115, 048
Sewing-machines, Cording-attachment for.....	G. A. Colton and S. P. Babcock.....	117, 152
Sewing-machines, Cording-attachment for.....	H. C. Goodrich.....	121, 775
Sewing-machines, Cording-attachment to.....	N. and R. S. Barnum.....	114, 254
Sewing-machines, Cover and desk for.....	B. T. Loomis and J. A. Carey.....	113, 315
Sewing-machines, Cover and table for.....	F. R. Wolfinger.....	110, 711
Sewing-machine work-holder.....	H. Eddy.....	115, 288
Sewing-machines, Device for operating.....	G. W. Manson.....	120, 654
Sewing-machines, Device for securing hemmers to.....	H. M. Hall.....	119, 350
Sewing-machines, Electro-motor for.....	S. Jones.....	118, 537
Sewing-machines, Embroidering-attachment for.....	W. A. Mack.....	111, 071
Sewing-machines, Embroidering-attachment for.....	A. W. Johnson.....	112, 601
Sewing-machines, Embroidering-attachment for.....	W. Carpenter.....	121, 332
Sewing-machines, Fan-attachment for.....	G. Thompson.....	115, 255
Sewing-machines, Fan-attachment for.....	T. Green.....	116, 303
Sewing-machines, Feeding-mechanism for.....	W. B. Higgins.....	111, 452
Sewing-machines, Feeding-mechanism for.....	R. M. Berry.....	112, 531
Sewing-machines, Feeding-mechanism for.....	T. Diehl and L. Oehring.....	115, 036
Sewing-machines, Feeding-mechanism for.....	C. Beuttel.....	115, 155
Sewing-machines, Feeding-mechanism for.....	E. P. West.....	116, 779
Sewing-machines, Feeding-mechanism for.....	D. M. Smyth.....	119, 246
Sewing-machines, Feeding-mechanism for.....	R. Blees.....	119, 690
Sewing-machines, Felling-attachment for.....	C. C. Blakemore.....	119, 814
Sewing-machines, Folding or tuck-laying device for.....	T. M. Farrand.....	115, 044
Sewing-machines, Friction-band and stop for.....	F. E. Whiteside.....	114, 071
Sewing-machines, Gathering-attachment for.....	W. A. Mack.....	111, 130
Sewing-machines, Gathering-attachment for.....	A. and W. T. Johnson.....	111, 453
Sewing-machines, Guide for.....	F. Herterich.....	112, 245
Sewing-machines, Guide for.....	C. Armstrong.....	119, 102
Sewing-machines, Guide for.....	W. H. Halladay.....	120, 966
Sewing-machines, Hemmer and binder for.....	M. Harris.....	121, 516
Sewing-machines, Hemmer for.....	C. Carleton.....	110, 737
Sewing-machines, Hemmer for.....	M. Harris.....	115, 197
Sewing-machines, Hemmer for.....	D. H. Darby.....	115, 282
Sewing-machines, Hemmer for.....	A. F. Colby.....	117, 604
Sewing-machines, Hemmer for.....	T. K. Ober.....	117, 669
Sewing-machines, Hemmer for.....	H. A. Ellis.....	119, 921
Sewing-machines, Hemmer for.....	D. Forrest.....	120, 868
Sewing-machines, Hemmer for.....	H. A. Ellis.....	121, 046
Sewing-machines, Hemmer for.....	W. Johnson.....	121, 944
Sewing-machines, Hemmer for.....	S. B. Lawrence.....	122, 180
Sewing-machines, Hemming and binding attachment for.....	M. Harris.....	120, 969
Sewing-machines, Hinge for.....	R. H. St. John.....	112, 978
Sewing-machines, Hinge for.....	R. H. St. John.....	119, 665
Sewing-machines, Holder for needles in.....	H. J. Hancock.....	112, 033

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Sewing-machines, Hydraulic and pneumatic motor for.	J. H. and R. W. Welch.....	121, 441
Sewing-machines, Lamp-bracket for.....	H. Campbell.....	111, 813
Sewing-machines, Lamp-bracket for.....	R. S. Dennison.....	121, 089
Sewing-machines, Means for extending the tables of ..	A. Dickinson.....	121, 998
Sewing-machines, Means for mounting, upon their tables.	C. Parham.....	119, 784
Sewing-machines, Mechanism for operating.....	E. L. Howard.....	119, 930
Sewing-machines, Mechanism for operating attachments in.	J. W. Lyon.....	122, 268
Sewing-machines, Motive-power for.....	D. E. Stearns.....	115, 379
Sewing-machines, Motive-power for.....	D. T. Pittenger.....	115, 516
Sewing-machines, Motive-power for.....	H. S. Barnes.....	121, 745
Sewing-machines, Motor for.....	D. H. Sherman.....	118, 650
Sewing-machines, Motor for.....	J. A. Macauley.....	121, 532
Sewing-machines, Needle and holder for.....	G. M. Frary.....	112, 576
Sewing-machines, Needle for.....	O. L. Hopson and H. P. Brooks.....	116, 594
Sewing-machines, Needle-holder and tension-device for.	E. L. Crumb.....	113, 027
Sewing-machines, Needle-holding device for.....	J. B. Secor.....	121, 967
Sewing-machines, Needle setter and threader for.....	J. Karr.....	110, 855
Sewing-machines, Needle-sharpening attachment for.	C. P. Clark.....	114, 265
Sewing-machine seat.....	S. A. Sexton.....	111, 782
Sewing-machine, Shuttle for.....	E. C. Thaxter.....	111, 275
Sewing-machine shuttles, Tension-mechanism for.....	J. W. Strange.....	116, 113
Sewing-machines, Plaiting-device for.....	W. Walker.....	110, 699
Sewing-machines, Presser and stitch-divider for.....	A. S. Woodward.....	110, 945
Sewing-machines, Presser-feet for.....	T. Hudson.....	114, 823
Sewing-machines, Presser-foot for.....	J. Wensley.....	116, 380
Sewing-machines, Presser-foot lifter for.....	T. W. Kennedy.....	122, 256
Sewing-machines, Ruffle-guide and band-holder for.....	E. L. Howard.....	113, 669
Sewing-machines, Ruffling and cording attachment for.	M. J. Palmer.....	118, 145
Sewing-machines, Ruffling and hemming attachment for.	W. Johnson.....	116, 715
Sewing-machines, Ruffling-attachment for.....	F. B. Zay.....	112, 832
Sewing-machines, Ruffling-attachment for.....	E. J. Toof.....	118, 759
Sewing-machines, Ruffling-attachment for.....	E. J. Toof.....	120, 173
Sewing-machines, Ruffling-attachment for.....	G. W. Darby.....	120, 732
Sewing-machines, Ruffling-device for.....	E. L. Howard.....	120, 817
Sewing-machines, Scissors-grinding attachment for.....	R. S. Morse.....	121, 537
Sewing-machines, Shuttle for.....	F. W. Boland.....	110, 730
Sewing-machines, Shuttle for.....	G. M. Pratt.....	111, 678
Sewing-machines, Shuttle for.....	T. Colson.....	112, 125
Sewing-machines, Shuttle for.....	J. D. Moore.....	112, 480
Sewing-machines, Shuttle for.....	G. H. Lenker.....	116, 331
Sewing-machines, Shuttle for.....	J. C. Hervey.....	120, 277
Sewing-machines, Shuttle for.....	G. A. Fairfield.....	120, 731
Sewing-machines, Shuttle-threading device for.....	J. L. Borsch.....	119, 217
Sewing-machines, Stop for.....	J. B. Safford.....	118, 490
Sewing-machine stand.....	W. H. Grove.....	114, 435
Sewing-machines, Stud for suspending driving-wheels for.	R. H. McCann.....	118, 469
Sewing-machines, Table and drawer-attachment for...	D. W. C. Breed.....	119, 962
Sewing-machines, Tension-regulator for.....	E. M. Estabrook.....	119, 589
Sewing-machines, Tension-roller for.....	J. McCarthy.....	115, 756
Sewing-machines, Thread-cutter for.....	J. A. Lord.....	118, 467
Sewing-machines, Thread-cutting device for.....	F. H. Furniss.....	116, 424
Sewing-machines, Thread-rack for spooling-attachments of	J. L. Demorest.....	121, 043
Sewing-machines, Treadle for.....	F. E. Mills.....	112, 162
Sewing-machines, Treadle for.....	A. Fontayne.....	116, 040
Sewing-machines, Treadle for.....	J. W. W. Gordon.....	116, 830
Sewing-machines, Treadle for.....	H. C. Smith.....	120, 401
Sewing-machines, Treadle for.....	J. B. Winslow.....	121, 976
Sewing-machines, Treadle for.....	H. A. Clark.....	122, 107
Sewing-machines, Tuck-creaser for.....	H. W. Fuller.....	112, 578
Sewing-machines, Tuck-creaser for.....	C. E. Robinson.....	114, 604
Sewing-machines, Tuck-folder for.....	O. D. and E. C. Woodbury.....	121, 699
Sewing-machines, Tuck-folding attachment for.....	R. G. Bush.....	121, 433
Sewing-machines, Tucking-device for.....	A. Morehouse.....	110, 670
Sewing-machines, Tuck-marker for.....	J. F. Kellogg.....	112, 050
Sewing-machines, Tuck-marker for.....	G. L. Du Laney.....	114, 276
Sewing-machines, Tuck-marker for.....	A. Shattuck.....	119, 284
Sewing-machine table.....	J. C. Cochran.....	116, 809
Sewing-machine table.....	F. R. Wolfinger.....	117, 359
Sewing-machine, Table and treadle for.....	S. W. Wardwell, jr.....	121, 823
Sewing-machine treadle.....	L. W. Sapp.....	112, 184
Sewing-machine treadle.....	A. D. Lufkin.....	116, 464
Sewing-machine treadle.....	R. N. Allen.....	119, 686
Sewing-machine treadle.....	H. C. Smith.....	119, 724
Sewing-machine, Waxed-thread.....	H. P. Aldrick.....	113, 962
Sewing-machines, wax-thread, Tension-apparatus for..	J. Kimball.....	117, 644
Sewing-silk, thread, &c.....	A. Turner.....	115, 661

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Shade-cord retainer	W. McConnell	113, 904
Shade-roller and fixture	C. D. Shrieves	115, 534
Shade, Spring-roller	S. Hartshorn	113, 879
Shaft for sleighs	C. and D. Bock	118, 682
Shaft-protector	A. S. Porter	116, 486
Shafts, Keying wheels to	C. B. Cole	112, 551
Shaft-tug	K. Frazer	110, 911
Shampooing-apparatus	M. L. Winn	121, 921
Shaping-machine	W. H. Warren	113, 824
Shawl-strap	G. B. Broad	113, 623
Shawl-strap	D. W. Brockway	113, 734
Shawl-strap	G. Crouch	119, 223
Shearing-machine	F. W. Tally and M. Ryan	116, 885
Shears and button-hole cutter, Combined	S. W. Eastren	116, 936
Shears and scissors, Manufacture of	R. and A. Renz	116, 868
Shears, Clipping	G. H. Pratt	116, 216
Shears, Clipping	C. F. Harlow	117, 774
Shears, Clipping	R. Wyatt	118, 417
Shears, Clipping	G. F. Evans	119, 019
Shears, Cutting	R. O. Wood	118, 419
Shears, Hair-blowing attachment for	W. C. McIntire	118, 625
Shears, Pruning	J. Calder	111, 106
Shears, Pruning	E. D. Gaines and J. A. Mechillen	111, 738
Shears, Pruning	F. Smiley	112, 392
Shears, Pruning	A. Barling	115, 415
Shears, Pruning	J. Christy	115, 571
Shears, Pruning	W. E. Hughes	115, 735
Shears, Pruning	D. L. Seely	115, 773
Shears, Pruning	W. A. Wallet and I. Harbaugh	115, 995
Shears, Pruning	E. L. Yancey	116, 387
Shears, Pruning	C. H. Eggleston	117, 525
Shears, Pruning	G. W. Anesley	117, 590
Shears, Pruning	H. H. Ingalsbe and G. A. Prescott	117, 888
Shears, Pruning	F. Smiley	118, 492
Shears, Pruning	W. F. and G. H. Clemmer	118, 690
Shears, Pruning	J. W. Mix	119, 041
Shears, Pruning	I. Grass	119, 229
Shears, Pruning	J. F. Creighton	119, 452
Shears, Pruning	G. Bergner	121, 319
Sheave and rail for sliding doors	T. M. Lyons	115, 333
Sheet-iron, Manufacture of, and removing scale from iron for coating with other metals.	C. Marshall	114, 956
Sheet-lead, Machine for making	H. Hannen	115, 730
Sheet-metal	J. J. Locke	115, 748
Sheet-metal, Machine for	C. R. Choate	112, 418
Sheet-metal, Machine for bending	W. and H. Cooley	115, 281
Sheet-metal, Machine for cutting	S. A. Bostwick	116, 923
Sheet-metal screws, Machine for threading	E. C. Blakeslee	116, 922
Shelf and support, Portable	P. D. Root	111, 384
Shelf, Arm-revolving	P. Nichols	117, 103
Shelf, Culinary	G. T. Hunsaker	119, 985
Shelf, Extensible	S. H. Mercer	113, 683
Shell-fuse	E. Drake	111, 823
Shield and towel-rack for wash-stands	J. M. Oakley	120, 086
Shield for naphtha-gas burners	H. H. Edgerton	117, 396
Shield for shaft-couplings	C. S. Hall	116, 369
Shifting-rail for buggy-tops	J. F. Regan	119, 951
Shifting-rail for wagon-seats	J. L. Reed	119, 408
Shingle-bands, Machine for cutting and punching	C. B. Choate	119, 820
Shingle-machine	H. C. Babcock	111, 029
Shingle-machine	W. Porter	111, 379
Shingle-machine	J. Decker	113, 746
Shingle-machine	U. D. Mihills	114, 322
Shingle-machine	J. Jimo	114, 443
Shingle-machine	G. Challoner	115, 932
Shingle-machine	C. Shelmidine	116, 637
Shingle-machine	F. Muzzy	116, 985
Shingle-machine	O. A. Olmstead	116, 988
Shingle-machine	E. Hughes	121, 105
Shingle-machine	J. P. Wilder	121, 698
Shingle-machine	F. A. Huntington	122, 117
Shingle, Metal-clad	T. N. Hickcox	113, 882
Shingles, Composition for coating	T. J. Langley	117, 647
Shingles, Machine for sapping timber for	G. M. Hinkley	113, 666
Shirt	S. Sibley	111, 690
Shirt	A. Salmon	111, 978
Shirt	J. Hayden	113, 659
Shirt-bosom	S. Sibley	120, 462
Shirt-bosom expander	C. Crowell	116, 687
Shirt-button or stud	L. W. Fifield	111, 049
Shirt polishing-machine	E. B. Blackwell	112, 533

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Shirt-stud.....	J. G. Griswold.....	117, 069
Ship-building.....	E. M. Strange.....	117, 345
Shipper-saddle.....	L. D. Lothrop.....	121, 792
Ships, Apparatus for loading.....	F. Paterson.....	117, 673
Ships, Construction of.....	H. Jordan.....	118, 458
Ships' trestle-tree.....	H. Townsend.....	113, 471
Shoe.....	J. W. Fisher.....	110, 840
Shoe.....	S. W. Francis.....	112, 439
Shoe.....	C. E. Tyler.....	114, 067
Shoe.....	E. S. Converse.....	115, 169
Shoe.....	N. J. Simonds.....	115, 648
Shoe.....	C. C. Geller.....	116, 828
Shoe.....	G. C. How.....	116, 959
Shoe.....	G. B. Hall.....	118, 929
Shoe.....	E. Walcott.....	119, 207
Shoe.....	J. A. Rose and G. Mason.....	120, 460
Shoe and gaiter.....	F. P. Buzzell.....	120, 852
Shoe and over-gaiter.....	T. R. Evans.....	113, 149
Shoe-bindings, Manufacture of.....	C. E. Morrill.....	121, 400
Shoe-fastening.....	E. Webb.....	116, 653
Shoe-fastening.....	F. D. Ford and E. D. McIntosh.....	117, 876
Shoe-fastening.....	F. Coeller.....	121, 757
Shoe-fastening.....	S. P. Triscott and G. A. Wheeler.....	122, 203
Shoe-fastening.....	J. Slatcher.....	122, 287
Shoe for horses, Temporary.....	W. H. Halsey.....	115, 311
Shoe, Gaiter.....	F. H. A. Hussey.....	117, 078
Shoe, India-rubber.....	C. Meyer and J. Evans.....	111, 962
Shoe, India-rubber.....	L. Elliott, jr.....	116, 938
Shoe, India-rubber.....	L. Elliott, jr.....	120, 252
Shoe, Infants'.....	W. M. Carpenter.....	114, 261
Shoemakers' foot-measure.....	W. Wilson.....	118, 414
Shoemakers' Foot-measure for.....	J. McNichol.....	115, 761
Skoemakers, Shoulder-tool for.....	C. Malhoit.....	118, 620
Shoe-pegs, metallic, Machine for making.....	T. T. Prosser.....	116, 219
Shoe-quarter, &c.....	S. Babbitt.....	121, 312
Shoe, Rubber.....	J. Letson.....	117, 897
Shoes and boots, Trimming-jack for.....	J. Webb, jr.....	117, 582
Shoes and boots, Wooden shank for.....	J. M. Watson.....	112, 754
Shoes for thrashers.....	D. W. Hollihan.....	111, 541
Shoe-shafts, Manufacture of.....	S. Moore.....	111, 863
Shoes, Jack-post for pegging.....	D. Bowker.....	116, 672
Shoes, Machine for shaping the soles of.....	E. Blaney.....	118, 185
Shoes, Machine for turning rands for.....	H. H. Bigelow.....	113, 009
Shoes, Mode of lasting.....	W. H. Lovejoy.....	112, 057
Shoe-sole.....	J. M. Hunter.....	114, 145
Shoe-soles, Machine for nailing.....	L. Goddu.....	120, 155
Shoe-soles, Machine for nailing with wire.....	L. Goddu.....	111, 837
Shoes, seamless, Manufacture of.....	C. W. Peeler and N. C. Johnson.....	117, 811
Shooting-iron.....	W. A. Andrews.....	115, 558
Shortening for culinary uses.....	H. W. Bradley.....	120, 026
Shot-cartridge.....	S. W. Paine.....	111, 377
Shot-cartridge for breech-loading fire-arms.....	C. E. Sneider.....	116, 640
Shot-case and distributor.....	S. Booton.....	110, 625
Shot-charger.....	G. D., G. A., and J. T. Capewell.....	113, 139
Shot-gun.....	D. Smith.....	115, 370
Shot, Machine for making.....	W. W. Brigg.....	122, 102
Shoulder-brace.....	A. W. Beaman.....	117, 728
Shovel.....	R. Calhoun.....	121, 331
Shovel and post-hole digger, Combined.....	J. Thompson.....	116, 888
Shovel, Coal.....	J. H. Farmer.....	117, 756
Shovel, Fire.....	I. W. Denning.....	112, 789
Shovel-handle.....	H. C. Trask.....	113, 709
Shovel-handle.....	F. Alsip.....	120, 607
Shovel-handles, Machine for making.....	H. R. Butterfield.....	121, 274
Shovel, Sifting.....	T. F. Rooney.....	112, 073
Shovel, Snow.....	A. Q. Adams.....	110, 886
Show-case.....	J. A. Hughes.....	112, 712
Show-case.....	G. A. Hearn.....	113, 660
Show-case.....	W. H. Grove.....	115, 195
Show-case.....	G. A. Hearn, jr.....	116, 306
Show-case.....	W. H. Grove.....	120, 752
Show-case and counter.....	W. Cooper, jr.....	116, 564
Show-case, Refrigerating.....	T. L. Rankin.....	112, 493
Show-case, Revolving.....	W. J. Scott.....	111, 980
Show-cases, boxes, &c., Corner socket for.....	J. W. Truby.....	117, 631
Shower-bath apparatus.....	C. P. Brown.....	112, 217
Show-stand.....	W. Fisher.....	115, 456
Shutter-fastener.....	E. A. Goodes.....	110, 913
Shutter-fastener.....	J. L. Devol.....	112, 225
Shutter-fastener.....	P. L. Weimer.....	112, 756
Shutter-fastener.....	C. Pabst.....	112, 840

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Shutter-fastener	J. D. Phyfe and J. D. Perrine	114, 037
Shutter-fastener	P. Keffer	115, 063
Shutter-fastener	J. W. Megaw	115, 762
Shutter-fastener	J. S. Lash	115, 965
Shutter-fastener	E. F. Reed and J. C. Grundy	119, 180
Shutter-fastener	J. F. Smith	119, 479
Shutter-fastening	P. T. Share	110, 686
Shutter-fastening	A. P. Seymour	115, 364
Shutter for hot-beds, &c	J. Weed	119, 805
Shutter-worker	H. H. Barr	114, 748
Shutter-worker	F. Strattner	114, 875
Shutter-worker	J. W. Jedkins	115, 616
Shutter-worker	L. H. Watson	117, 226
Shutter-worker	C. M. Brown	118, 190
Shutter-worker	A. Brown	119, 304
Shutter-worker	L. B. Kenney	120, 281
Shutter-worker	J. T. Pope	122, 056
Shuttle-binder, Adjustable	N. J. Allen and J. C. Moody	111, 506
Shuttle drop-box mechanism	J. Dyson	117, 523
Shuttle, Loom	E. H. Graham	116, 435
Shuttle, Loom	F. O. Tucker	118, 405
Shuttle, Loom	F. O. Tucker	121, 262
Shuttle, Loom	C. H. Waters and W. Orr, jr	121, 830
Shuttles, Machine for drilling	C. E. Billings	110, 822
Side-arm sheath	J. J. M. Frey	118, 228
Side-walk, Endless traveling	A. Speer	119, 796
Sieve	R. J. Mann	113, 184
Sieves, Method of constructing	R. J. Mann	117, 790
Sifter and strainer	L. Fay	111, 623
Sifter, Ash	W. Weaver	111, 795
Sifter, Ash	G. W. Rogers	113, 349
Sifter, Ash	G. W. Taylor	114, 224
Sifter, Ash	W. T. Stoutenborough	115, 990
Sifter, Ash	J. Brady and C. L. Wall	118, 334
Sifter, Coal	A. D. McMaster	116, 207
Sifter, Coal and ash	E. G. Cady	118, 513
Sifter, Flour	L. Sawyer	110, 672
Sifter, Flour	C. Huntley	111, 545
Sifter, Flour	O. D. Myers	113, 443
Sifter, Flour	W. B. Nichols	114, 961
Sifter, Flour	C. Richardson	121, 197
Sifter, Sand	W. Bailey	111, 604
Sifting-machine	B. N. Lampman	116, 457
Sign	J. Harrison	114, 811
Signal-apparatus, Electro-magnetic	A. Hahl	112, 242
Signal-apparatus for railroads, Electro-magnetic	T. S. Hall	118, 606
Signal-apparatus, Railway	W. Green	116, 831
Signal-box for fire-alarm telegraphs	S. Chester	112, 017
Signal for railroads	J. Fogarty	113, 756
Signal for railroad-trains	D. L. Schonberg	121, 901
Signal-house, Electro-magnetic	T. S. Hall	121, 870
Signaling-apparatus, Pneumatic	W. Foster, jr	113, 646
Signaling-apparatus, Pneumatic	W. Foster, jr	113, 647
Signal-light	A. M. Holmes	118, 941
Signal, Milkmen's	E. B. Blake	116, 014
Signal, Railway	C. D. Tisdale	122, 202
Signal, Railway-switch	A. W. Cram	115, 936
Signal, Telegraph	W. H. Ward	121, 561
Sign, &c., Suspending	J. H. and C. W. Crane	113, 403
Sign for street-lamps	W. Graham, W. Snyder, and P. O'Brien	121, 614
Sign for street-lamps	J. T. Foley	121, 938
Sign, Metallic	S. C. Collis	114, 927
Signs in paint, Process for producing	A. Brandon	117, 376
Silicon-steel, Manufacture of	C. M. Nes	112, 068
Silk and thread, Machine for cleaning and finishing	C. L. Frink	121, 505
Silk and thread measuring apparatus	L. Dimock	114, 114
Silk, Machine for stretching	J. N. Leonard	116, 461
Silks and other textile fabrics, Printing	L. Prang	113, 343
Silk-winding apparatus	J. Macfarlane	116, 203
Silver-ore, Chloridizing	E. N. Riotte	113, 208
Silver-ores, Concentrating	S. T. Wren	120, 014
Sinking shafts and excavating tunnels and cuttings	J. Shelby and M. C. Bullock	115, 115
Siphon, Suction	E. de Lagillarde	117, 750
Sirups and creams and soda-water, Apparatus for manufacturing	A. Piccaluga	120, 531
Sisal, hemp, and other grasses, Machine for cleaning	C. A. Deane	115, 828
Sizing for window-shades	W. Devine	117, 520
Sizing-machine	A. H. Sturgis	111, 153
Skate	M. Kinsey	112, 604
Skate	D. Kerr and A. E. Hovey	113, 062
Skate	W. H. Barker	113, 615

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Skate	B. M. Lank	115, 457
Skate	C. T. Day	116, 935
Skate-fastening	E. L. Fenerty	121, 092
Skate, Parlor	O. B. Oakley	115, 767
Skate, Parlor	C. Raitz	117, 329
Skein-twisting machine	T. Stibs	117, 218
Skewers, Machine for making	C. Andrews	113, 964
Skid and truck, Combined	J. M. Lane	116, 966
Skins and hides, Machine for scouring	E. Fitzhenry	119, 513
Skins and leather, Machine for whitening and sbav- ing	J. Hodgkinson	115, 473
Skirt	C. W. Peirce, jr.	112, 625
Skirt-board	J. F. Nettleton	113, 195
Skirt, Hoop	A. Carter	113, 854
Skirt, Hoop	C. C. Carpenter	116, 411
Skirt, Hoop	T. S. Sperry	116, 507
Skiving-machine	J. H. Mudgett	121, 557
Sky-light	C. S. Snead	112, 644
Sky-light, conservatory, and other glazed structures	G. Hayes	112, 594
Slate	W. F. Baade	117, 964
Slate	F. D'Ossone	119, 332
Slate-cutting machine	W. H. Rayner	115, 816
Slate-frame	P. Lugenbell and W. A. Ford	113, 678
Slate-frame	W. W. Hamilton	114, 259
Slate-frame	W. N. Bartholomew	116, 139
Slate-frame	W. Knight	119, 363
Slate-frame	H. M. Clay	120, 039
Slates, Machine for dressing and punching	J. Jaerer	113, 672
Slate-washer	F. W. Porter	115, 150
Slat for window-shades	J. Shorey and W. D. Butler	114, 299
Slat-matting for car-floors, &c	S. Lewis	115, 952
Sled-knee	C. Shaw	114, 357
Sled-knee	A. L. Shears	121, 673
Sleigh	R. Elliott	112, 566
Sleigh	A. Rank	112, 630
Sleigh	H. Smith	119, 660
Sleigh	R. Webb	119, 504
Sleigh	W. Leslie	121, 251
Sleigh-runner attachment to wheeled vehicles	Z. L. Pratt	113, 924
Sleigh, Self-propelling	C. H. Hudson	116, 191
Sleighs, Mode of propelling	C. H. Hudson	116, 313
Slide-bar for bridle-bits	A. P. Mason	115, 753
Slide for drawers	J. S. Gibbons	113, 571
Slide for extension-tables	J. Plenkharp	122, 278
Slide for suspenders	J. E. Smith	117, 694
Slide-valve for steam-engines, Balance	G. W. Richardson	111, 382
Sliding-door hanger	G. Rumsey	113, 697
Sling for hay-elevator	G. Smith	116, 231
Sling for packages	F. Hohorst	119, 765
Slop-hopper	J. G. Iis	117, 635
Slotting-machine	W. H. Warren	115, 795
Smelting or blast furnace	W. Ferrie	116, 693
Smoke and spark arrester and consumer	C. F. Pike	120, 666
Smoke-consumer	C. Plumb	119, 581
Smoke-consuming apparatus for fire-boxes	J. Dnrand	119, 532
Smoke-house	A. Waterman	113, 602
Smoke-stack	W. Toepfer	114, 585
Smoking-tobacco, Medicated	W. A. Wright	111, 711
Smoking-tobacco, Treating	W. A. Wright	111, 712
Smoothing and ruffling iron	A. R. Armstrong and C. S. Dudley	113, 720
Smut and wheat separating machine	W. H. Wash	111, 794
Smut-machine	T. Wallace and G. W. Hyde	115, 397
Smut-machine	J. Lantz	115, 620
Smut-mill and grain-cleaner	B. T. Trimmer	120, 012
Snap and buckle combined	P. A. Snyder	121, 015
Snow-shovel tip	E. Hubbard	111, 939
Soap	J. T. and P. S. Bever	114, 353
Soap	I. D. Balch	116, 005
Soap	F. M. Ellis	116, 521
Soap	G. Baker and I. Bullock	117, 722
Soap	C. R. Kircherer	119, 772
Soap, Apparatus for cooling and mixing	J. D. Sturges	114, 063
Soap, Composition for	R. Eastman	115, 440
Soap-compound	H. Loos	112, 259
Soap-cutting and beading machine	J. B. Ultsch	113, 304
Soap-dish	J. M. Thatcher	112, 953
Soap for polishing metals	E. A. Johnson	113, 526
Soap, Liquid	D. Cardullo	121, 930
Soap, liquid, Composition for	J. M. Rall	122, 251
Soap, Machine for mixing	C. Elling	119, 018
Soap, Manufacture of	J. Hoagland and C. McDonald	111, 454

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Soap, Manufacture of	D. H. Warren	116, 897
Soap, Manufacture of	W. Johnson	121, 787
Soaps, Composition for	J. E. Doteh	121, 044
Socket for connecting spokes and fellies	S. Mitchell	117, 799
Soda-water, Composition for the manufacture of	J. B. Wood	114, 502
Sofa, Folding	J. W. McDonough	116, 850
Soft iron and steel castings, Manufacture of	R. Yeilding	119, 682
Solder	W. S. Deeds	119, 080
Soldering-apparatus	J. Gulden	115, 308
Soldering-apparatus	I. Kaylar	115, 617
Soldering-apparatus	A. J. Burke	116, 410
Soldering-apparatus	J. Gulden	117, 770
Soldering-apparatus	L. A. Smith	120, 466
Soldering-apparatus	F. L. Miller	120, 991
Soldering-apparatus	J. Gracie	121, 360
Soldering-apparatus	D. Porteous	122, 132
Soldering-iron	J. C. Reynolds	120, 166
Soldering-iron	J. Williams	122, 092
Soldering-lamp and blow-pipe, Combined	A. C. Frieseko	118, 229
Soldering-tool	L. McMurray and R. J. Hollingsworth	115, 760
Solder-wire, Casting	E. M. Lang	112, 054
Sole and heel burnishing machine	V. K. Spear	119, 422
Solution of balsamic gums for medical purposes, cosmetics, perfumery, &c.	O. Oldberg	118, 813
Sorghum-stripper	F. Ronx	118, 881
Sound-indicator, Mariners'	J. Cochran	110, 827
Sounding-board for pianos, Prepared-wood	J. B. Dunham	117, 393
Sower, Plaster	T. J. West	112, 519
Sower, Plaster	C. E. Gladding	112, 583
Sower, Seed	G. A. Carman	111, 726
Sower, Seed and plaster	G. Jessup and D. P. Sharp	117, 295
Spade	H. Parkman	111, 240
Spade-bayonet	W. S. Wetmore	122, 206
Spades and shovels, Method of making	L. D. Clift	115, 166
Spading-machine, Rotary	L. H. Gibbs	116, 297
Spark-arrester	C. L. Pierpont	110, 676
Spark-arrester	D. Beach	110, 890
Spark-arrester	T. A. Andrews, jr.	111, 507
Spark-arrester	J. Smith	112, 506
Spark-arrester	W. W. Elliott	114, 117
Spark-arrester	M. O'Connor	114, 846
Spark-arrester	W. A. West	117, 492
Spark-arrester	M. A. Glynn	118, 711
Spark-arrester	W. M. K. Thornton	119, 544
Spark-arrester	S. and J. Greacen, jr	120, 059
Spark-arrester	D. R. Proctor	122, 058
Spark arrester and consumer for locomotives	G. H. Griggs	120, 638
Spark-arrester for locomotives	B. P. Freeman and P. Payton	113, 155
Spark-arrester for steam-boilers	J. Gates	120, 423
Spark-arrester, Locomotive	J. G. Armstrong	112, 310
Spavin, Compound for the cure of	W. J. Andrews	116, 135
Spectacle-clew for the sails of vessels	G. H. Creed	115, 826
Spectacle-frame	M. Reisley	116, 222
Speculum-attachment	J. D. Bruce	118, 683
Speed-recording apparatus	E. F. Sheltman	118, 160
Spelter, Process and apparatus for the manufacture of	J. E. Burrows	116, 551
Spike-extractor	W. S. Hough	111, 845
Spike-extractor	J. A. Bogert	115, 421
Spike-extractor	W. S. Hough	117, 420
Spike-extractor	W. H. Ives	119, 770
Spike-machine	D. Eynon	110, 755
Spike-machine	D. Eynon	110, 756
Spike-machine	F. Bruso	118, 429
Spike, Railroad	T. R. Timby	121, 023
Spikes, Combination of devices and furnaces for the manufacture of	D. Eynon	120, 254
Spikes, Machine for making	J. H. Swett	111, 013
Spikes, Machine for making	O. A. Wadsworth	117, 128
Spikes, Machine for making	F. J. Kimball	118, 539
Spikes, Machine for making	M. Foster	119, 925
Spindle and bearing for spinning-frames	C. L. Austin	118, 422
Spindle-bearing	C. F. Wilson	113, 380
Spindle-bearing for spinning-machines	J. H. Sawyer	118, 282
Spindle-bearing for spinning-machines	J. H. Sawyer	119, 283
Spindle for spinning-machines	D. Hussey	119, 032
Spindle for clothes-wringer rolls	T. E. McDonald	119, 235
Spindle for loom-shuttles	A. Morton	117, 556
Spindle for safe-lock	M. G. Tousley	118, 830
Spindle for wringer-rollers	T. E. McDonald	113, 544
Spindle for wringer-rolls	T. E. McDonald	120, 207
Spindles, Device for holding spinning-bobbins on	G. Draper	116, 168

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Spindle-step	G. Draper	114, 536
Spindle-step	G. W. Knight and G. Draper	114, 570
Spinning, &c., Top roll for	W. A. Caswell	113, 140
Spinning-machine	S. M. and H. M. Williams	114, 074
Spinning-machine	J. Goulding	115, 191
Spinning-machine	S. R. and G. W. Ballard	115, 676
Spinning-machine	G. H. Hathorn	121, 517
Spinning-machines, Guide-board for	O. Pearl	115, 095
Spinning-machines, Spindle-step and cover for	O. Pearl	115, 233
Spinning-mules, Scroll for operating the carriages of	W. Bond	115, 271
Spinning-ring	H. L. Peirce	117, 676
Spinning-rings, Fastener for	C. E. Trowbridge	112, 655
Spinning-rings, Fastening for	J. H. Sawyer	117, 934
Spinning, Self-acting mule for	I. Stead, H. Holcroft, and F. R. Pearson	114, 619
Spinning-top	P. Eley	114, 781
Spinning-wheel	F. Voegtlí	111, 991
Spiral bands, Soldering	E. H. Russell	113, 099
Spiral-wire springs, Machine for making	T. Baggott	115, 413
Spirit-level	G. A. Shelley	120, 675
Spirit-level	L. L. Davis	121, 088
Spirit-level, Adjustable	J. Morss and F. B. Abel	114, 027
Spirits, Apparatus for distilling	G. H. Kleimer	122, 032
Spirits, Apparatus for rectifying	W. H. Ware	117, 836
Spirits, Apparatus for rectifying	J. G. Guenther	122, 115
Spirits, Apparatus for rectifying and refining	F. Measey	112, 476
Spirits, Manufacture and treatment of alcoholic	O. Lugo	112, 725
Splints, Machine for cutting	A. F. Seow	115, 110
Split-casting	J. Yocum, jr	116, 134
Split-needles, Manufacture of	C. H. Palmer	114, 332
Splits, Machine for cutting	E. Knight	112, 721
Spittoon	S. G. Cabell	115, 023
Spittoon	J. H. Seymour	120, 673
Spittoon-tongs	A. H. Seipt	116, 226
Spoke and felly machine	D. Reed and T. E. Pierce	112, 279
Spoke-sawing machine	G. F. Ahny	116, 915
Spokes, Machine for sawing	T. J. Tolan	120, 468
Spokes, Machine for tenoning	A. Sherman	114, 720
Spokes, Machine for tenoning	J. H., J. S., and T. S. Rook	117, 686
Spokes, Machine for throating	J. Woodburn	118, 173
Spokes to wheels, Mode of attaching	J. G. Wiggins	112, 200
Spoke-tenoning machine	G. E. Culp and M. Flaig	111, 181
Sponge-cup	S. C. Catlin	121, 233
Spool case, Silk	S. Elmer	111, 828
Spool-exhibitor	J. D. Cutter	113, 838
Spool-holder	A. W. Warren	120, 135
Spool show-case	R. H. Norris	112, 272
Spool-stand and button-box, Combined	J. H. Drum	114, 537
Spool-thread case	W. S. Phillips	117, 107
Spool-threads, Show-case for	A. C. Phillips	112, 277
Spoon	F. Grosjean	112, 240
Spoon	H. C. Milligan	115, 085
Spoon	J. H. Smith	120, 679
Spoon, Trolling	J. H. Mann	121, 182
Spouts, Machine for bending	D. Hayes and J. Marten	115, 852
Spring-adjuster	S. A. Alexander	115, 410
Spring and attachment, Buggy	G. A. Brown	119, 564
Spring, Arrow	J. B. Cleaveland	118, 108
Spring, Bed	D. V. Crandall	114, 112
Spring, Bed	H. Chandler	118, 906
Spring, Bedstead	E. F. Duuaway	118, 351
Spring, Bedstead	E. F. Dunaway	118, 352
Spring-bit for cleaning and enlarging wells	J. H. Boyd	122, 149
Spring-bolt	W. E. Sparks	111, 693
Spring-bottom for wagon-bodies	E. D. Cramer	110, 830
Spring, Buggy	H. H. Hill	117, 171
Spring, Car	J. Leland	111, 127
Spring, Car	A. Hebbard	113, 768
Spring, Carriage	E. Hall	116, 705
Spring, Carriage	P. Broadbooks	117, 253
Spring, Carriage	D. D. Wisell	119, 907
Spring, Combined pneumatic and rubber	P. S. Delvin	111, 438
Spring, Door	L. R. Witherell	114, 379
Spring, Door	W. M. Gray	121, 507
Spring, Door	W. M. Gray	121, 508
Spring, Door and gate	P. Kern	116, 196
Spring for beds and seats	J. P. Chamberlain	121, 990
Spring for cars, Torston	B. Hershey	113, 166
Spring for mattresses, &c	W. B. Judson	119, 853
Spring for railway-cars	E. Cliff	114, 645
Spring for seats, &c	Z. Cobb	116, 557
Spring fortreadles, Auxiliary	H. Lull	115, 073

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Spring for upholstery purposes.....	J. F. Duffy	122, 111
Spring for vehicles.....	J. N. Decker	113, 270
Spring for vehicles.....	C. W. Saladee	113, 573
Spring for vehicles.....	C. W. Saladee	113, 574
Spring for vehicles.....	C. W. Saladee	117, 819
Spring for vehicles.....	L. Righter	121, 662
Spring for wagons and carriages	S. J. Pearsall and S. P. Briggs	110, 934
Spring for wheeled vehicles.....	C. W. Saladee	113, 451
Spring, furniture, Japanned.....	J. J. Eagleton	122, 001
Spring-heads, Manufacture of	G. Hopson	116, 311
Spring-lock for ventilating sashes.....	M. Claver	118, 909
Spring-lock for ventilating sashes.....	A. Freutal	118, 921
Spring, Nest spiral car	R. Vose	119, 253
Spring, Nest spiral car	R. Vose	119, 254
Spring, Pneumatic	J. Bevan and B. W. Hitchcock	111, 303
Spring, Railway-car.....	R. Dudley and B. Hershey	112, 229
Spring, Railway-car.....	G. Elliott	119, 129
Spring, Railway-car.....	J. W. Cochran	119, 823
Spring-seat for wheeled vehicles	E. F. Dunaway	117, 392
Springs, Mode of tempering	A. Carry	116, 266
Springs, Railway-car.....	S. Yerkes	114, 741
Spring, Wagon.....	T. A. McFarland	115, 758
Sprinkler, Garden.....	J. I. Spear	114, 362
Sprinkler, Hose	W. Anderson	112, 309
Sprinkler, Street	W. C. Moores	110, 775
Spur	H. Fellows	113, 152
Spur	J. C. Bohn	116, 404
Square, Adjustable	K. Steen	114, 986
Square, bevel, plumb, and gauge, Combined.....	M. W. Wilson	114, 378
Squares, Machine for marking.....	C. S. Bement	110, 623
Stable-fixtue	S. S. Bent	114, 392
Stables, Releasing-device for.....	E. B. Myers	122, 188
Stair-pad.....	E. H. Bailey	119, 105
Stair-rod	J. Wilks	116, 249
Stair-rod	E. Rath	118, 271
Stair-rod	E. J. Smith	121, 431
Stair-rod	H. C. Marston	121, 641
Stair-rod fastening.....	R. Hutchinson	110, 975
Stair-rod fastening.....	E. Rath	111, 249
Stairway.....	C. S. Close	111, 610
Stalk-puller	H. Buttenberg and J. L. Strong	114, 526
Stall for horses.....	S. S. Bent	111, 426
Stall for horses.....	D. M. Denison	113, 637
Stall, Portable	D. P. and W. F. Leach	111, 653
Stamp-battery	I. W. Forbes	115, 295
Stamp, Branding.....	A. M. Darrell	111, 436
Stamp-canceler	C. C. Egerton	110, 962
Stamp-canceler	A. D. Owen	111, 773
Stamp-canceler	F. W. Brooks	111, 038
Stamp-canceler	F. W. Brooks	115, 693
Stamp-canceler	J. Goldsborough	116, 434
Stamp-canceler	D. E. Eaton	121, 765
Stamp-guide	H. Bolthoff	121, 985
Stamp-holder	J. G. Rogers	118, 488
Stanchion	W. C. Gifford	115, 304
Standard for drop-lights	J. Cunningham	115, 442
Standard for railway-cars.....	S. S. Beeman	117, 146
Stand for show-windows	J. R. Palmenberg	120, 825
Stand-pipe for gas-retorts	M. Coombs, jr.	121, 276
Staple-machine	B. Hershey	113, 663
Staple-machine	W. Malick	119, 711
Staples, Machine for making.....	W. Noiker and E. H. Morgan	119, 529
Stave-dressing machine	L. D. Benson and L. C. Benson	115, 811
Stave-equalizer	H. S. Wiley	114, 073
Stave-jointer	J. Sherman and W. Marriott	113, 214
Stave-jointer	H. A. Crossley	113, 268
Stave-jointer	S. C. Blinn	116, 670
Stave-jointer	A. J. Howell and J. Murphy	117, 887
Stave-jointer	L. R. Palmer	117, 920
Stave-jointer	F. P. Denel	118, 215
Stave-jointer	L. R. Palmer	118, 337
Stave-sawing machine	T. Watson	111, 414
Stave-sawing machine	R. W. George	113, 043
Staves, Machine for crozing.....	H. Bradshaw	115, 690
Staves, Machine for cutting.....	A. J. Howell and J. Murphy	111, 457
Staves, Machine for cutting.....	W. Sisson	114, 359
Staves, Machine for sawing.....	A. Rewrick	113, 565
Steam and water injector	S. S. Jamison, jr.	121, 376
Steam and water pipes in an exhaust-chamber, Arranging.....	J. Becker	118, 183
Steam-boiler feeder	L. Foote	111, 116

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Steam-boiler float-valve	J. Peters	122, 053
Steam-boiler flue-cleaner	C. H. Stebbins	117, 008
Steam-boiler flue-joint	A. C. Fletcher	120, 508
Steam-boilers, &c., Composition for covering	J. Riley	114, 711
Steam-boilers, &c., Non-conducting material for covering.	B. F. Smith	111, 984
Steam-boilers, &c., Purifying water for use in	G. C. L. Degenhardt	114, 776
Steam-boilers, Compound for preventing incrustations in.	W. T. Richard	117, 462
Steam-boilers, Compound for removal of scale from ..	W. T. Grant	111, 198
Steam-boiler, Sectional	J. S. Griffith and C. E. Emery	111, 639
Steam-boiler sediment-collector	A. Zipser	121, 445
Steam-boilers, Hand-hole stopper for	D. Sullivan	117, 450
Steam-boilers, Safety-attachment to	A. Robes and J. C. Chapman	112, 283
Steam-boilers, Setting	O. Ranney	116, 630
Steam-boilers, Surface blow-off for	J. S. Griffith	114, 551
Steam-boilers, Water-heater for	D. C. G. Field	111, 526
Steam-engine, Condensing	T. Edwards	113, 989
Steam-engines, Apparatus for controlling the velocity of.	W. E. Worthen	121, 306
Steamer and condenser, Combined	G. W. Lane	111, 067
Steamer, Culinary	J. S. Ogden	119, 169
Steamer, Culinary	C. E. Wahlgren	121, 558
Steam-exhaust for steam-engines, Condensed	W. H. Wheatland	121, 697
Steam flue-cleaner	W. Doty	118, 506
Steam-hammer standards, Construction of	O. C. Ferris and F. B. Miles	113, 508
Steaming-apparatus	O. Lehmann	113, 068
Steaming-attachment for kerosene-stoves	R. B. Mitchell	112, 943
Steaming, filtering, &c., Apparatus for	J. Murdock	116, 083
Steam-packing, Composition for	W. R. Bunnell	115, 694
Steam-power air-brake device	G. Westinghouse, jr.	117, 841
Steam-rieving machines, Slide-valve for	C. Sellars	112, 385
Steel, Converting articles made of wrought iron into.	L. La Breche Viger	121, 263
Steel glass-cutter and knife	T. Spénard	111, 269
Steel, Hardening	E. Savage	118, 882
Steel in crucibles, Manufacture of	C. M. Nes	121, 889
Steel, Manufacture of	F. J. Slade	113, 587
Steel, Preparing and treating iron ore in the manufacture of.	E. L. Seymour	115, 243
Steel, steely iron, and homogeneous or crystalline iron, Manufacture of.	J. D. Whelpley and J. J. Storer	111, 504
Steel, Tempering	G. B. Garman	111, 446
Steering-apparatus	J. C. Schrader and C. L. Mathiesen	110, 793
Steering-apparatus	A. Inglefield	111, 546
Steering-apparatus	A. G. Crossman	113, 025
Steering-apparatus	N. Richardson	117, 929
Steering-apparatus	E. S. Drew	118, 176
Steering-apparatus	J. Gardner	118, 923
Steering-apparatus	J. W. Strange	119, 425
Steering-apparatus for road-steamers	G. W. Fitts	117, 759
Steering rods or chains, Fair-leader for	A. W. Robinson	121, 423
Stenciling-apparatus	H. Kimball	121, 634
Stencil-plates, Device for cutting	H. Bolthoff	119, 737
Step and tram box for mill-spindles	W. G. Mornment	111, 768
Step box, Spindle	L. Maish	114, 455
Step-cover	D. P. Dieterich and R. M. Popham	115, 717
Step for spindles of spinning-machines	A. A. Westcott	118, 763
Step, library, and holder for blacking-implements combined.	R. G. Elder	121, 345
Stereoscope, Hand	A. Beckers	115, 269
Stereotype-matrices, Machine for producing	A. Shiland	119, 537
Stereotype-matrices, Machine for producing	R. E. Draper	115, 287
Stereotypes	F. H. Aiken	121, 036
Stereotypes, rubber, Making	H. D. Perky	120, 096
Stern-bearing for propellers	J. Boiles	117, 039
Still	J. A. Campbell	112, 900
Still, Alcohol	G. Clarkson	111, 609
Still for beer, &c.	C. B. Jarvis and J. W. Goff	117, 890
Still for hydrocarbon	J. Gracie	114, 802
Still for oil	J. Gracie	114, 803
Still for spirits	A. Booze	120, 701
Still for spirits, &c.	W. Makely	115, 751
Still, Petroleum	J. L. Stewart and J. P. Logan	113, 811
Stills, Condenser for	J. Yates and E. Denell	114, 245
Still, Spirit	J. E. Morris	117, 445
Stilts	J. Emmert	120, 952
Stilts, Boys'	L. A. Kimberly	118, 861
Stirrup for cart and dray shafts	W. B. McClure	121, 644
Stirrup for riding-saddles	L. S. Taylor	112, 652
Stirrups, Loop for	J. R. Gathright	112, 800
Stitching-machine, Button-hole	D. W. G. Humphrey	115, 857

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Stock-car, Railway	W. M. Lyon	115, 074
Stock-car, Railway	W. Stark, J. G. Fisher, and S. Fitch	121, 212
Stock-car, Railway	W. Stark, J. G. Fisher, and S. Fitch	121, 213
Stockings, &c., Method of knitting	H. A. House	112, 346
Stock-marker	D. A. Griffith	114, 674
Stone, Artificial	T. Madeley	114, 577
Stone, artificial, Manufacture of	A. Ott	118, 477
Stone, artificial, Manufacture of	J. O'Friel	119, 394
Stone, artificial, Manufacture of	I. Coleman	120, 369
Stone, Composition for staining	P. B. Laird	118, 865
Stone-crusher	A. Dietz	112, 560
Stone-crusher	P. Wood	121, 143
Stone-crushing apparatus	A. H. Smith	120, 784
Stone-crushing machine	C. L. Desmolins	120, 502
Stone-drag	E. C. Allen	110, 619
Stone-dressing machine	T. Ross	120, 169
Stone-dressing machine	T. W. Baxter	120, 482
Stone for pavements, &c., Heating and preparing	C. Allen	120, 016
Stone for pavements, walks, floors, &c., Artificial	C. B. Hutchins	110, 852
Stone, Machine for cutting	H. and J. L. Young	119, 910
Stone, Machine for cutting and dressing	J. Hedrick, W. Task, and H. Kreedler	111, 206
Stone, Machine for dressing	T. Woods	118, 323
Stone, Machine for forming artificial	J. S. Elliott	111, 921
Stone, Machine for polishing	A. Saffer	119, 282
Stone, Machine for sawing	H. S. Gillette	121, 773
Stone, Machine for turning	J. D. Brunton	122, 222
Stone-puller	G. Sprinkel	121, 820
Stone-sawing machine	J. Dendinger and C. Henri	122, 234
Stones, &c., Setting	W. Riker	111, 253
Stones, Machine for dressing	W. Adams	116, 390
Stool, Camp	H. Free	115, 598
Stool, Camp	A. Hallowell, E. Elliott, and C. A. Blodgett	117, 277
Stool, Milk	J. N. Knapp	114, 153
Stool, Milking	R. W. Jones and J. R. Baker	110, 661
Stool, Milking	G. Smith	113, 806
Stool, Milking	L. O. Allen	115, 803
Stool or table	A. O. Crane	113, 266
Stool, Piano	C. A. Schindler	119, 793
Stop-cock	P. E. Malmstroin and P. Dummer	117, 438
Stop-cock	H. Müller	120, 311
Stop-cock	J. Radston	120, 668
Stop-cock and valve	W. Haas	112, 450
Stop-cock, Locking	E. Davis and J. M. Stiles	112, 693
Stop for carpenters' plows	T. Nichols	114, 590
Stopper for ladles	F. A. Ostrander	117, 918
Stop-valve, Sliding	H. G. Ludlow, 2d	110, 926
Stove and drum, Heating	W. H. Nobles	110, 781
Stove and fire-place, Open-front	J. G. Hunt	115, 476
Stove and furnace, Base-burning	C. B. Gregory	121, 361
Stove and furnace, Heating	S. J. Gold	117, 532
Stove and range, Cooking	J. S. Peckham	114, 336
Stove-attachment, Cooking	N. S. Minniss	111, 963
Stove, Base-burning	J. Q. C. Searle	111, 389
Stove, Base-burning	S. Spoor	111, 485
Stove, Base-burning	E. M. Deey	111, 914
Stove, Base-burning	D. G. Littlefield	111, 951
Stove, Base-burning	G. G. Hunt	112, 044
Stove, Base-burning	De M. Madden	112, 609
Stove, Base-burning	L. Litchfield	112, 936
Stove, Base-burning	J. Van Warmer	113, 473
Stove, Base-burning	S. H. La Rue	113, 535
Stove, Base-burning	E. Bussey and C. A. Hamlin	114, 260
Stove, Base-burning	R. Diven	114, 533
Stove, Base-burning	A. White	114, 738
Stove, Base-burning	A. C. Corse	114, 928
Stove, Base-burning	Z. Hunt	114, 943
Stove, Base-burning	W. M. Stove	114, 947
Stove, Base-burning	H. Remsen	115, 359
Stove, Base-burning	S. C. Hewes	115, 959
Stove, Base-burning	D. Smith	117, 006
Stove, Base-burning	G. G. Hunt	117, 292
Stove, Base-burning	W. T. Black	117, 373
Stove, Base-burning	J. W. Teft	117, 696
Stove, Base-burning	H. B. Van Benthuyzen	117, 833
Stove, Base-burning	W. Doyle	117, 996
Stove, Base-burning	R. Backus	120, 229
Stove, Base-burning	W. Doyle	120, 811
Stove, Base-burning	A. Spitzmiller	121, 433
Stove-bottom	D. Schuyler	121, 667
Stove, Coal-oil	J. A. Frey	118, 358

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Stove, Cooking	S. Blue	111, 437
Stove, Cooking	A. E. Chamberlain	111, 517
Stove, Cooking	P. Low	111, 657
Stove, Cooking	D. Stuart	111, 698
Stove, Cooking	E. Bussey	111, 811
Stove, Cooking	E. Bussey	111, 812
Stove, Cooking	N. S. Vedder	111, 837
Stove, Cooking	L. Dunham	112, 132
Stove, Cooking	W. N. Moore	112, 371
Stove, Cooking	S. Pierce	112, 377
Stove, Cooking	A. Warren	112, 397
Stove, Cooking	D. Curtis	112, 425
Stove, Cooking	G. W. Walker	112, 993
Stove, Cooking	D. E. Paris	113, 486
Stove, Cooking	E. C. Little and D. H. Nation	113, 437
Stove, Cooking	D. E. Paris	113, 556
Stove, Cooking	J. Easterly	113, 643
Stove, Cooking	F. Clement	113, 742
Stove, Cooking	D. E. Paris	113, 790
Stove, Cooking	S. Smith	113, 807
Stove, Cooking	M. A. Boughton	113, 842
Stove, Cooking	D. Brix	113, 846
Stove, Cooking	J. H. Keyser	114, 018
Stove, Cooking	W. D. C. Lloyd	114, 100
Stove, Cooking	J. Segondy and M. Ravolo	114, 308
Stove, Cooking	B. C. Fitzhugh	114, 788
Stove, Cooking	W. L. McDowell	114, 838
Stove, Cooking	N. Duncan	115, 831
Stove, Cooking	W. J. Hoxworth and S. H. La Rue	116, 058
Stove, Cooking	R. Gass	116, 436
Stove, Cooking	H. T. Holmes and W. H. Priest	116, 444
Stove, Cooking	J. Speaker and W. Dorn	116, 768
Stove, Cooking	S. Gregory	116, 832
Stove, Cooking	J. Wilder	116, 905
Stove, Cooking	A. J. Redway	116, 992
Stove, Cooking	L. Hermance	117, 417
Stove, Cooking	G. E. Hopkin	118, 534
Stove, Cooking	D. E. Paris	119, 045
Stove, Cooking	J. H. Goodfellow	119, 514
Stove, Cooking	J. S. Perry and A. Dickey	119, 949
Stove, Cooking	G. Roberts	119, 999
Stove, Cooking	J. H. Codding	120, 244
Stove, Cooking	G. Z. House	120, 439
Stove, Cooking	A. P. Corse	120, 497
Stove, Cooking	P. P. Ellis	120, 728
Stove, Cooking	J. W. O. Webb	120, 840
Stove, Cooking	S. Ketchum	121, 053
Stove, Cooking	L. Hermance	121, 101
Stove, Cooking	J. A. Weakley	121, 566
Stove, Cooking	W. J. Keep	121, 876
Stove, cooking, Base-burning	H. E. Wolcott	118, 771
Stove, cooking, Base-burning	W. Clark	122, 156
Stove-cover for fuel-reservoirs	J. V. Vrooman	119, 434
Stove-damper	E. Lohs and	114, 453
Stove-door	D. N. Martin	116, 334
Stove-drum	W. Twitchell	111, 549
Stove-drum	C. Fisher	113, 413
Stove-drum	G. C. Benton	113, 989
Stove-drum	G. T. Spaulding	120, 217
Stove, Heating	S. H. Emery, jr. and C. H. Castle	111, 622
Stove, Heating	W. Cottingham and J. W. Stafford	112, 535
Stove, Heating	W. Stark and J. G. Fisher	113, 290
Stove, Heating	E. Bussey	113, 492
Stove, Heating	P. Rohdin and C. Ostergren	114, 046
Stove, Heating	A. S. Shontz	114, 065
Stove, Heating	S. Smith	114, 614
Stove, Heating	F. Barclay	115, 014
Stove, Heating	J. McCoy	115, 079
Stove, Heating	S. E. Hewes	115, 957
Stove, Heating	S. E. Hewes	115, 958
Stove, Heating	N. A. Boynton	116, 674
Stove, Heating	L. A. Brooks	116, 927
Stove, Heating	H. C. Miles	118, 029
Stove, Heating	W. F. Ross	119, 535
Stove, Heating	J. D. Miller	119, 634
Stove, Heating	A. C. Rand	119, 718
Stove, Heating	A. C. Rand	119, 719
Stove, Heating	J. W. O. Webb	120, 803
Stove, Heating	H. Zahn	121, 741
Stove, Heating	M. A. Cushing	122, 100
Stove, Heating	J. Wager	122, 223

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Stove, Hydrocarbon	C. Hitchcock	118, 129
Stove, Laundry	J. Van	113, 949
Stove-leg	J. Birekhead, jr	112, 314
Stove-leg	A. L. Finch	112, 437
Stove-leg	T. J. Close	113, 142
Stove-leg	B. F. Roberts	114, 713
Stove-leg	D. Stuart and L. Bridge	115, 540
Stove-leg	W. H. Van Cleve	116, 240
Stove-leg	J. M. Corbin	117, 261
Stove-leg	J. T. Milligan	122, 126
Stove-lid	R. C. Graves	120, 738
Stove-lid	W. Teamer	121, 019
Stove-lids, Pattern for molding	S. Smith	110, 689
Stove-pipe cleaner	D. Sanford	112, 500
Stove-pipe cleaner	D. Murphy	114, 181
Stove-pipe cleauer	J. F. Kellogg	117, 642
Stove-pipe damper	E. R. Hali and D. A. Keyes	114, 806
Stove-pipe damper	J. Ash	119, 911
Stove-pipe damper	W. J. Keep	121, 877
Stove-pipe damper and shelf, Combined	E. H. Clinton and W. H. Lavinia	115, 025
Stove-pipe drum	W. L. Phillips	113, 694
Stove-pipe drum	B. Webster	116, 900
Stove-pipe drum	B. J. Hobson	119, 609
Stove-pipe drum	T. R. Renwick	119, 646
Stove-pipe drum	E. E. Blinn	120, 024
Stove-pipe drum	L. Racine	121, 001
Stove-pipe elbow	F. Dieckmann	120, 503
Stove-pipe elbow	G. W. Howell	121, 104
Stove-pipe elbow	J. P. Brace	121, 229
Stove-pipe elbow	F. Dieckmann	121, 341
Stove-pipe joint	W. Stine	115, 906
Stove-pipe shelf	S. J. Anderson	110, 817
Stove-pipe shelf	J. McCallum	111, 225
Stove-pipe shelf	J. D. Scott	112, 290
Stove-pipe shelf	J. P. Elliott	114, 279
Stove-pipe shelf	M. Smith	116, 233
Stove-pipe shelf and clothes-drier	G. W. Landon	112, 931
Stove-pipe thimble	J. D. Pierce	112, 173
Stove-pipe thimble	H. G. Smith	114, 484
Stove-pipe thimble	C. A. Buttles	119, 571
Stove-pipe thimble	C. A. Buttles	120, 710
Stove-pipe thimble	C. A. Buttles	121, 329
Stove, Railroad-car	J. T. Evans	117, 059
Stoves and furnaces, Fire-pot for	E. Mingay	113, 549
Stoves, Auxiliary air-chamber for	J. H. Goodfellow	121, 506
Stoves, Composition for blacking	R. W. Bailey	146, 533
Stoves, Door for	G. W. Smith	115, 902
Stoves, Draught-regulator for	W. W. Waddell	114, 497
Stoves, heating, Fire-box for	W. L. Mc Dowell	114, 837
Stoves, Mica frame for	G. G. Richmond	111, 383
Stoves, Platform for	W. Westlake	119, 676
Stoves, ranges, &c., Pressure-gauge for water-backs of	J. Aderson	118, 566
Stoves, Water-back for	A. J. Blanchard	116, 143
Stoves, Window for	H. B. Van Benthuysen	111, 020
Stoves, Zinc-board for	W. Westlake	112, 996
Stove, Tile	E. Y. Robbins	112, 964
Stove-utensil holder	S. Watt	113, 711
Stove waiter or shelf	C. D. Wright	115, 923
Strap, Cow-bell	J. H. and A. Hughes	122, 020
Strap-hinge, Angular	C. F. Hawley	115, 851
Strap-hinges, Machine for making	W. J. Lewis	114, 019
Straw-board, &c., Machine for lining	B. F. Field	111, 048
Straw-board, &c., Machine for pasting paper upon	M. Fitzgibbons	116, 173
Straw-board for the construction of buildings, Manufacture of	J. M. Cobb	111, 611
Straw-carrier for thrashing-machines	O. Abell	117, 238
Street-crossing	J. Schley	120, 332
Street gas-lamps, Apparatus for extinguishing	G. S. Dunbar	119, 455
Street-sewers, Receiver and stench-trap for	T. Dark	114, 270
Street-sprinkling machine	S. E. Cursons	113, 404
Street sweeping machine	E. A. G. Roulstone	111, 477
Street-washer	G. C. Bailey	121, 313
Stretcher for paintings	J. Fairman	112, 435
Structure, Arched	C. Henderson	113, 881
Stud-fastener	A. Hartmann	121, 100
Stud for shirts	E. Brett	121, 231
Studio-easel	J. C. Forbes	121, 240
Stud or button	W. R. Dutemple	119, 749
Stuffing-box	P. W. Richards	117, 927
Stuffing-box	P. W. Richards	117, 928
Stuffing-box	P. W. Richards	121, 897

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Stump-extractor	E. W. Cady	111, 725
Stump-extractor	A. B. Tilyou	112, 864
Stump-extractor	A. Dickenson	118, 594
Stump-extractor	F. M. Nash	118, 635
Stump-extractor	J. S. Swann	118, 981
Stump-extractor	J. D. Troyer	121, 436
Stump-extractor	G. E. Dyer	122, 237
Stump-extractor and derrick, Combined	W. Q. Baxter	116, 537
Stump-pulling machine	W. Smith	115, 125
Substances, Apparatus for disintegrating	C. G. C. Simpson	117, 824
Sucker-rod	D. Jones	119, 232
Sugar, &c., Apparatus for boiling	I. Vest	115, 395
Sugar, &c., Apparatus for evaporating	P. Robinson	122, 194
Sugar, Evaporating-apparatus for the manufacture of	F. G. Butler	116, 803
Sugar from molasses, Process of obtaining	J. Schroder	119, 886
Sugar, Machine for packing	C. E. Haynes	121, 518
Sugar, raw, Refining	R. W. Bender	115, 417
Sugar, Refining	A. F. W. Partz	114, 192
Sugar, Refining	J. A. Morrell	118, 875
Sugars, Machine for mixing and bleaching	M. Hanford	110, 972
Sugars, raw, Decolorizing	L. H. G. Ehrhardt	117, 161
Sunken vessels, Apparatus for raising	M. Osborn	118, 741
Sulky	J. Winecoff	119, 956
Sulky	T. S. Seabury	121, 817
Sulphurets and other ores, Apparatus for cleaning	C. C. Coleman	111, 612
Sulphuric acid, Apparatus for making	Saint J. Ravenel	114, 042
Sun-stroke protector for head-coverings	H. Prévôt	115, 894
Superphosphate of lime, Manufacture of	C. Morfit	113, 370
Supply and waste cock	W. S. Cooper	117, 606
Support and advertising medium for street cars	M. Warne	120, 471
Supporter and pessary	H. Spillman	116, 368
Supporter for spinning rings	T. Marsh	118, 622
Supporters for the anus, India-rubber	H. Greentree	121, 868
Support for the sashes of carriage-doors and windows	J. C. Ham	114, 436
Surfaces, Process of printing on enameled or vitreous	S. J. Hoggson	122, 170
Suspender	J. W. Dayton	111, 617
Suspender	S. E. Smith	112, 746
Suspender	R. H. Eddy	111, 732
Suspender	T. Rich	118, 055
Suspender	H. C. Griggs	121, 509
Suspender	R. H. Eddy	121, 600
Suspender and safety-pocket, Combined	M. Harris	120, 584
Suspender and shoulder-brace, Combined	T. O. Potter and J. W. Smith	116, 093
Suspender and shoulder-brace, Combined	T. O. Potter and J. W. Smith	116, 993
Swage, Tinner's	B. Coddington	115, 575
Swaging-tool for boiler-tubes	I. S. Hamilton	121, 512
Sweeping-machine	G. S. Norris	112, 837
Swing	F. Hovey	112, 708
Swing	J. A. Crandall	115, 825
Swing	G. W. Cole	116, 560
Swing for children	W. H. Scriven and W. K. Taylor	122, 066
Swing, Portable	D. M. Reynolds	111, 570
Switch and signal apparatus	A. Schnabel and T. Henning	111, 261
Switch and signal, Railway	J. A. Anderson	120, 694
Switch chair, Railway	G. H. Scougale	114, 207
Switches and draw-bridges, Electro-magnetic signal for	T. S. Hall	119, 137
Switch for changing gauge of cars	T. Fogg	114, 123
Switch for galvanic batteries	G. Little	115, 966
Switch, Railroad	J. E. Kea	114, 637
Switch, Railroad	S. French	114, 936
Switch, Railway	W. Wharton, jr	110, 808
Switch, Railway	P. V. M. Raymond	114, 196
Switch, Railway	J. M. Maxwell	114, 583
Switch, Railway	H. Strait	114, 622
Switch, Railway	B. Hinkley	115, 470
Switch, Railway	T. Newman	117, 198
Switch, Railway	E. A. Trapp	119, 672
Switch, Railway	E. Mercier	120, 592
Switch, Railway	C. L. Cook	121, 158
Switch, Railway	E. A. Trapp	121, 824
Switch, Railway	W. L. Martin	122, 271
Switch, railway, Operating	A. C. Devlan	122, 233
Switch-stand	E. F. Reynolds	121, 419
Switch, Telegraph	A. H. Freeman	112, 798
Sword-scabards, Method of coating and finishing	V. Price	112, 181
Syringe	H. N. Mattison	120, 525
Syringe, Garden	W. J. Johnson	116, 599

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
T.		
Table	L. Menzer	120, 759
Table and stand	J. S. Welch and A. A. Wheeler	118, 991
Table basket or dish	J. Gibson, jr	119, 086
Table, Billiard	W. Lochhead	110, 925
Table, Billiard	L. A. Grill	115, 601
Table, Billiard	L. A. Grill	116, 950
Table, Billiard	G. Smith	118, 288
Table, bureau, cupboard, and sink, Combined	M. J. Miller	119, 873
Table-caster	J. Gibson, jr	117, 765
Table, Dining	S. R. Garner	112, 441
Table, Dining	J. H. and L. Drane	116, 419
Table, Extension	F. Menzer	114, 319
Table, Extension	F. Souwein	114, 722
Table, Extension	J. J. McKnight	117, 659
Table, Extension	L. Menzer	120, 760
Table for drilling-machines	T. Reaney	111, 084
Table for emery-grinders	J. L. Jackson	118, 017
Table for emery-grinders	J. L. Jackson	122, 253
Table for invalids	T. N. Webb	116, 516
Table for making wainscoting	J. W. Boughton and E. C. Hussey	114, 907
Table, Game	E. Brunswick	119, 262
Table, Ironing	D. W. Marshall	110, 769
Table, Ironing	F. A. Byram	117, 737
Table, Ironing	T. Reed	118, 643
Table, Ironing	P. O'Thayne	118, 878
Table, Ironing	C. C. Hardy	119, 703
Table, Ironing	T. Reed	120, 101
Table, Ironing	J. H. Mallory	120, 296
Table, Ironing, and kitchen, combined	J. N. Valley	118, 990
Table, Kitchen	J. Shaw	112, 083
Table, Kitchen	B. Welteck	119, 208
Table, Kitchen	H. Closterman, jr	122, 225
Table-leaf support	D. Saylor and L. Anderson	113, 452
Table or stand	J. Thornton	120, 550
Table, Sawing-machine	J. Creager	112, 788
Table, Sewing-machine folding	A. H. Wagner	118, 655
Tables, Fan-attachment for	T. S. Binkard and R. H. Boal	116, 919
Table-sink	J. Wylie	115, 408
Table-slide	M. Griffin	118, 123
Table-slide, Extension	S. B. Nash	115, 087
Table, stand, &c	D. K. Barnhart	116, 797
Table-stand for pitcher, &c	J. Gibson	117, 066
Table-support, Folding	J. Daly	116, 164
Tablet index-book	J. B. Lake, jr	117, 433
Table-top, Folding	C. W. Mills	113, 548
Tack	A. A. Porter	112, 378
Tackle-block	I. E. Palmer	114, 333
Tackle-block	E. Doty	115, 450
Tackle-block, Elastic	J. E. Jones	114, 567
Tackle for hoisting sails	G. A. Ford	111, 833
Tag	T. Van Kannel	121, 221
Tallying-register, Portable	H. C. Buhoup	116, 550
Tamping-apparatus	D. Corgan	116, 565
Tank, Oil	H. F. and G. S. Snyder	114, 361
Tank, Oil	H. F., G. S., and A. Snyder	115, 127
Tank, Oil	H. F. and G. S. and A. Snyder	116, 366
Tanners' rinsing-wheel	P. Lull	119, 778
Tanners' steeper	L. K. Parsons, G. E. Getchell, and S. W. Fairfield	116, 626
Tannin, Process of separating from solutions	N. C. Platt	117, 455
Tanning	W. C. Stone	111, 583
Tanning	G. Pile	114, 596
Tanning	D. Woodbury	118, 089
Tanning-apparatus	J. W. Coburn and E. F. Winslow	119, 822
Tanning, Apparatus and process of	W. Morris	119, 238
Tanning, Apparatus for	L. C. England	112, 232
Tanning, Apparatus for making extracts for	R. P. Wilson	110, 710
Tanning-compound	A. T. Atherton	117, 241
Tanning in vacuo, Apparatus for	W. Masek	118, 034
Tanning, Preparation of material for	F. P. Porcher	115, 100
Tan-vat	N. Smith	116, 766
Tap, Air-pressure	C. T. Bonsall and T. Bergner	117, 857
Tap and nozzle for oil-cans	J. A. Bostwick	112, 771
Taper-holder	T. W. Houchin	112, 343
Tap for liquid-packages	A. Warth	116, 244
Tap for liquid-packages	A. Warth	116, 245
Tap for oil-cans	J. A. Bostwick	111, 902
Tap for oil-cans	M. Andrew	117, 854
Tap for oil-cans	J. A. Bostwick	121, 579

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Tap or faucet for bottles.....	D. H. Chamberlain.....	116, 155
Tar, &c., from pine wood, Apparatus for extracting.....	J. D. Stanley.....	115, 378
Target-game.....	J. C. Schooley.....	110, 792
Tassel.....	J. Norman.....	115, 347
Tassel.....	J. Norman.....	116, 860
Tassel-head.....	G. A. Cooper and C. Southworth.....	114, 647
Tatting-shuttle and crochet-needle, Combined.....	C. Hingher.....	114, 008
Tea and coffee pots, Construction of.....	L. H. Williams.....	117, 228
Tea and coffee pot stand.....	T. D. Currier.....	120, 945
Tea-kettle and other vessels.....	J. Gibson, jr.....	117, 617
Tea-kettle cover.....	Z. Dixon.....	116, 035
Tea-tray.....	H. B. Beach.....	114, 636
Teeth, Artificial.....	T. A. D. Foster.....	120, 509
Teeth to pyroxyline dental plates, Process of attaching.....	J. A. Troatman.....	120, 130
Telegraph-apparatus.....	L. T. Lindsey.....	112, 360
Telegraph-apparatus.....	H. C. Nicholson.....	112, 836
Telegraph-apparatus.....	H. S. L. Bryan.....	116, 928
Telegraph-apparatus.....	I. Hall.....	117, 771
Telegraph-apparatus.....	J. Rowe.....	120, 000
Telegraph-apparatus.....	W. Gillett.....	120, 262
Telegraph-apparatus.....	G. Little.....	120, 290
Telegraph-apparatus, Automatic circuit-closer for.....	G. Little.....	120, 291
Telegraph apparatus, Circuit-closing roller for.....	G. Little.....	115, 968
Telegraph-apparatus, Printing.....	T. A. Edison.....	113, 033
Telegraph-apparatus, Printing.....	T. A. Edison.....	113, 034
Telegraph-apparatus, Printing.....	T. M. Foote and C. A. Randall.....	114, 790
Telegraph-apparatus, Printing.....	T. M. Foote and C. A. Randall.....	114, 791
Telegraph-apparatus, Printing.....	T. M. Foote and C. A. Randall.....	114, 792
Telegraph, Burglar-alarm and police.....	W. B. Watkins.....	111, 409
Telegraph-cable, Submarine.....	E. W. Newton.....	119, 093
Telegraph, Chemical electric.....	M. Lefferts.....	114, 692
Telegraph-dial, Magneto-electric.....	G. L. Anders.....	113, 240
Telegraph, Double-transmitting printing.....	G. L. Anders.....	120, 019
Telegraph, Electric.....	L. C. A. J. G. D'Arlinecourt.....	114, 771
Telegraph, electric, Protective.....	J. W. Stover.....	121, 971
Telegraph, Electro-magnetic fire-alarm.....	J. W. Martin.....	118, 033
Telegraph, Fire-alarm.....	W. B. Watkins.....	111, 410
Telegraph, Fire-alarm.....	W. B. Watkins.....	111, 411
Telegraph, Fire-alarm.....	W. B. Watkins.....	111, 412
Telegraph, Fire-alarm.....	W. B. Watkins.....	111, 413
Telegraphic-station circuits, Mechanism for opening and closing.....	E. Gray.....	110, 970
Telegraph-instrument, Mechanical.....	J. Gamble.....	113, 041
Telegraph-instrument, Printing.....	R. H. Gallaher.....	118, 122
Telegraph-instrument, Relay.....	G. Little.....	115, 967
Telegraph-insulator.....	G. W. Kidwell.....	120, 884
Telegraph-insulator.....	M. Y. Holley.....	121, 368
Telegraph-insulator, Glass.....	J. Garity.....	110, 645
Telegraph-insulators, Mode of making.....	W. Brookfield.....	113, 393
Telegraph-insulator, Molding.....	R. Hemingray.....	122, 015
Telegraph-key, Self-closing.....	J. F. and P. W. O'Sullivan.....	120, 662
Telegraph, Pneumatic.....	E. A. Calahan.....	112, 779
Telegraph, Pneumatic.....	A. M. and M. A. Wier.....	117, 025
Telegraph-pole.....	I. Hersey.....	114, 138
Telegraph-poles, &c., Device for climbing.....	J. A. and G. C. Hanger.....	117, 413
Telegraph, Printing.....	M. Phelps.....	110, 675
Telegraph, Printing.....	T. M. Foote and C. A. Randall.....	114, 793
Telegraph, Printing.....	D. Flanery.....	116, 826
Telegraph, Printing.....	L. T. Lindsey and H. H. Curtiss.....	119, 623
Telegraph, Printing.....	J. E. Smith.....	120, 116
Telegraph, Printing.....	H. Van Hoesenbergh.....	120, 133
Telegraph, Printing.....	R. Herring.....	121, 102
Telegraph purposes, Machinery for perforating paper for.....	T. A. Edison.....	121, 601
Telegraph relay-instrument.....	C. Rathbone.....	115, 356
Telegraph-repeater.....	E. Gray.....	114, 938
Telegraph-repeater, Automatic.....	C. H. Haskins.....	115, 314
Telegraph sounder, relay, &c., Electric.....	H. S. L. Bryan.....	113, 976
Telegraph-transmitter, Automatic.....	G. Little.....	120, 288
Tellurian.....	J. Troll.....	117, 579
Tempering-apparatus.....	H. H. Ray.....	119, 406
Tenoning-machine.....	L. Gould.....	112, 444
Tenoning-machine.....	M. S. Bourland.....	113, 731
Tenoning-machine.....	W. Gilmore.....	113, 873
Tenoning-machine.....	E. P. Halstead.....	115, 603
Tenoning-machine.....	A. C. McQuaid.....	116, 075
Tenoning-machine.....	G. W. Passel.....	116, 089
Tent and cot, Combined.....	W. H. Penrose.....	120, 530
Tent, Photographic.....	I. F. Woodward.....	119, 957
Textile and other materials, Machine for cutting.....	A. Warth.....	112, 752
Textile fabrics, Material for the manufacture of.....	H. V. P. Draper.....	119, 033

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Textile fabrics with hydrocarbon, Process for treating.	C. F. A. Simonin	119, 187
Thermo-electric pairs, Construction of	M. G. Farmer	113, 864
Thermometer, Churn	J. H. Smiley	120, 464
Thermometer, Electro-magnetic	G. M. Sternberg	119, 542
Thermometers, electro, Manufacture of	G. M. Sternberg	119, 543
Thimble	E. B. Towle	110, 879
Thimble and locket, Combined	W. A. Wansleben	113, 601
Thimble and thread-cutter	J. A. Pettet	119, 531
Thimble for making attachments to steam-boilers	A. Talbot	121, 017
Thimble-skein	C. Paddock	120, 092
Thimble-skein and boxing	M. Collins	113, 856
Thimble-skein for wagons	A. L. Shears	117, 000
Thrasher and grain-separator	W. C. Leyburn	114, 834
Thrasher, grain-separator, and cleaner, Combined	G. W. Heiges	115, 201
Thrashing and hulling machine, Combined	H. Ries	120, 167
Thrashing, hulling, and separating machine, Discharge-spout for.	M. H. Mansfield	114, 021
Thrashing-machine	H. E. Hurlburt	110, 658
Thrashing-machine	H. R. Canine	111, 042
Thrashing-machine	J. H. Miller	111, 367
Thrashing-machine	W. N. Jackson	111, 848
Thrashing-machine	F. G. Chesman	112, 782
Thrashing-machine	M. H. Mansfield	114, 313
Thrashing-machine	J. Foreman	114, 794
Thrashing-machine	A. McNaught	115, 081
Thrashing-machine	D. C. Baughman	115, 679
Thrashing-machine	D. C. Baughman	115, 680
Thrashing-machine	C. E. Roper	116, 356
Thrashing-machine	W. M. Pratt	117, 812
Thrashing-machine	A. V. Pitts	120, 826
Thrashing-machine	P. Upton and J. B. Lobdell	121, 220
Thrashing-machine	F. P. Jaquith	121, 377
Thrashing-machine	R. S. Williams	121, 739
Thrashing-machine	G. H. Zschech	122, 303
Thrashing-machine and grain-separator	J. Smith	114, 984
Thrashing-machine and separator	M. H. Mansfield	115, 223
Thrashing-machine, Field	G. Ricke	113, 345
Thrashing-machines, Band-cutting attachment for	J. Lee, jr., and J. Lee, sr.	114, 159
Thrashing-machines, Grain-separating and cleaning attachment to.	W. A. Myers	114, 463
Thread, Machine for polishing	S. Semple, sr., S. Semple, jr., and R. A. Semple.	112, 386
Thread-measuring apparatus	L. F. Dunn	122, 236
Threshold	E. Baker	122, 210
Throttle-valve for steam-engines	H. Camp and G. W. McIntosh	119, 315
Throttle-valve, Operative	W. Bellis	118, 676
Ticket-box	N. C. Burson and J. W. Robertson	114, 757
Ticket-case for railroad-stations	J. F. Birchard	114, 099
Ticket-checking apparatus, Electrical	M. Bebro	112, 207
Ticket-holder	H. Wexel	112, 520
Ticket-holder	A. F. R. Arndt	113, 479
Ticket-holder	E. M. Wright	114, 740
Ticket-holder	W. J. Campbell	121, 584
Ticket-punch, Registering	A. D. Hoffman	111, 345
Ticket-punch, Registering	J. H. Small	111, 392
Ticket-punch, Registering	J. H. Small	115, 119
Tidy-pin	H. H. Newton	115, 633
Tie, Bag	C. W. and W. H. Markham	115, 336
Tie, Bale	F. Watkins	114, 236
Tie, Bale	S. Brett	115, 692
Tie, Bale	J. S. Davis	120, 045
Tie, Bale	J. F. Rusling	120, 104
Tie, Bale	F. G. Brown	121, 988
Tie, Band	J. I. Peyton	117, 202
Tie, Cotton-bale	W. J. Carroll	114, 760
Tie, Cotton-bale	J. R. McClintock	115, 225
Tie, Cotton-bale	C. L. Johnson	116, 964
Tie for metallic bands or hoops used in baling cotton	G. Brodie	116, 925
Tie, Railway	W. A. Nichols	117, 449
Tile	D. H. Watts	121, 029
Tile-ditcher	I. T. Baker	113, 722
Tile for fire-proofing buildings, Composition	B. Kreischer	112, 929
Tile for roofing	J. B. Hughes	121, 624
Tile for roofs, Metallic	C. G. Van Pappelendam	115, 912
Tile, Hollow	B. Kreischer	112, 930
Tile-machine	A. Moorhous	111, 078
Tile-machine	J. B. Hughes	116, 447
Tile-machine	J. B. Hughes	116, 448
Tile-machine	Z. F. Parus	116, 480
Tile-machine	G. Clayton	117, 983
Tile, Roofing	C. Howard	111, 938

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Tiles, Laying	M. A. Burnham	120, 850
Tilt-hammer	H. Baines	118, 181
Timber of old-field pines, Treating the	J. H. Gatlin	113, 158
Time-check clock, Watchman's	I. G. Blake	113, 970
Time-detector, Watchman's	J. Dunning	113, 988
Time-indicator for offices	E. A. Wood	113, 828
Time-indicator, Office	J. S. Smith	119, 891
Time-lock	S. W. Hollen	121, 782
Tin boxes, cylindrical, Machine for seaming	J. R. Cole	116, 931
Tin, Electro-plating with	J. E. Bingham	115, 926
Tin from tin-scrap, Removing	C. Leannig	121, 948
Tin-grooving machine	H. J. Noves	115, 348
Tin-roofing machine	O. W. Burritt	120, 851
Tin salts from tinnerns' waste, Preparing	A. Ott	112, 839
Tin-ware, Machine for double-seaming	McD. Cohen and R. M. Edmonds	119, 123
Tip for wooden shovels	W. P. Wentworth	111, 891
Tire for traction-engines, Elastic	O. Hyde	111, 213
Tire for wheels of vehicles	W. H. Davis	118, 846
Tire for wheels of vehicles	L. Righter	121, 163
Tires, Combined machine for cutting, punching, and bending	J. C. Jordan	115, 868
Tires, loose, Device for tightening	H. Beckwith	121, 039
Tires, Machine for bending	D. F. Pomeroy	119, 716
Tires, Machine for punching and upsetting	H. B. Sevey	117, 116
Tires, Machine for upsetting	E. Hitt and A. Lent	120, 521
Tire-tightener	M. C. Chamberlin	118, 587
Tobacco-dressing machine	J. H. Howe	120, 069
Tobacco for chewing, Preparation of	D. A. Alden	114, 901
Tobacco, Machine for cutting	J. G. Baker	117, 365
Tobacco, Machine for stripping and booking	J. R. Tunncliff	114, 888
Tobacco-pipe	P. J. Dwyer	112, 432
Tobacco-pipe	W. F. Warburton	114, 997
Tobacco-pipe	W. C. Ruge	115, 363
Tobacco-pipe	T. Burnham	119, 075
Tobacco-pipe	J. M. Mur	119, 941
Tobacco-pipe	H. C. Finlayson	120, 053
Tobacco, Smoking	A. S. Rosenbaum	114, 352
Tobacco-stripper	C. Müller	118, 259
Toe-calk bar	R. B. Caswell	112, 321
Toilet-case	F. E. Dapron	114, 418
Toilet-mirror, Suspension	R. T. Sargent	113, 100
Tomatoes, Compound for preserving	D. C. Yates	119, 214
Tongs, Fire	A. M. George	111, 054
Tongs, Fire	J. Bradbury	120, 566
Tongs, Fire	J. Bradbury	120, 567
Tongs, Tinmen's	S. T. Dickinson	121, 763
Tongs for rolling barrels	M. W. Ingle	112, 462
Tongs, Fruit-can	A. T. Atherton	119, 912
Tongs, Pipe	J. Stratton	120, 910
Tongue for child's carriage	E. A. Morse	111, 558
Tonguing and grooving machine	D. F. Sutton and E. Meilink	119, 896
Tool, Carving	M. T. Boulton	112, 680
Tool, Coal-mining	I. Lamplugh	122, 035
Tool, Combination	J. B. Lamkin	111, 754
Tool, Combination	B. S. Burch	115, 695
Tool, Combined	G. J. Capewell	114, 759
Tool, Combined	J. W. Currier	114, 770
Tool, Curriers'	J. T. Barnstead	111, 901
Tool for boring cigar-molds	H. F. Moeler and H. P. Brandt	121, 059
Tool for carriage-makers' use	G. Atkinson	112, 311
Tool for cutting off auger-stems in oil-wells	J. H. Luther	111, 221
Tool for cutting off pipes in oil-wells	J. H. Luther	111, 220
Tool for expanding and cutting off boiler-tubes	I. S. Hamilton	121, 513
Tool for plugging leaky boiler-tubes	J. Ritchie	118, 813
Tool for setting hook-buttons	H. C. Bradford	120, 703
Tool, Grafting	J. Maddy	120, 986
Tool-handle fastener	J. G. Wilbur and H. H. Kilbourne	119, 807
Tool-head for planing-machines	S. W. Paine	119, 395
Tool-holder for grinders	E. F. Edgcomb	121, 766
Tool, Milling	L. Griswold	111, 927
Tool, Planing	N. Russell	113, 800
Tool, Reaming	J. B. Miller	119, 989
Tool, Ripping	J. O. Woods	117, 588
Tool, Riveting	B. F. Cobb	115, 821
Tools, &c., cast-steel, Process of manufacturing	D. Wihl	117, 949
Tools, &c., cast-steel, Process of manufacturing	D. Wihl	117, 950
Tool, Shank-marking	S. Stone	114, 620
Tool, Shoemakers'	M. W. and F. C. Lyman	110, 987
Tools, Reaming and countersinking	T. Reaney	111, 085
Tool, Watchmakers'	L. C. Butch and A. F. Thoma	120, 618
Tool, Weeding	P. Michael	116, 736
Tool, Wood-boring	J. L. Kraus	117, 082

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Top for basket-phaeatons, Shifting.....	C. P. Kimball	113, 775
Top for molasses-pitchers.....	G. M. Irwin	120, 748
Top for sirup-pitchers.....	P. Lang and P. Lauster	120, 337
Top-joint and its connections.....	C. W. Saladee	122, 063
Top-masts and top-gallant masts, Mode of attaching.....	L. Brown	113, 738
Torch.....	I. W. Shaler	118, 751
Torch, Hydrocarbon.....	W. K. Horner	118, 132
Torpedoes, marine, Propulsion of.....	J. A. Howell	121, 052
Torpedoes, Mode of exploding.....	E. Gomez	120, 963
Torpedo for oil-wells.....	J. C. Dickey.....	119, 330
Torpedo for oil wells.....	J. C. Dickey.....	120, 574
Torsion-spring for railway-cars.....	B. Hershey	114, 136
Torsion-spring for vehicles.....	B. Hershey	116, 186
Torsion-spring for vehicles.....	B. Hershey and R. F. Gaggin	116, 187
Tournure.....	A. W. Thomas	114, 624
Tournure.....	A. Waldmann.....	117, 490
Towel-basket and sponge-holder.....	J. F. Chandler.....	113, 398
Towel-holder.....	H. Alsop	112, 004
Towel-rack.....	P. A. Snyder	115, 250
Toy.....	J. H. Harbison	113, 654
Toy.....	S. Patterson	117, 559
Toy.....	H. N. Gallagher	119, 927
Toy-animals, Covering or hide for.....	H. Grube	118, 853
Toy-carriage.....	F. W. Porter	111, 149
Toy-carriage.....	J. W. Pilkinton	115, 636
Toy-gun.....	J. Lair and J. F. Rawzell.....	120, 284
Toy-gun.....	A. N. Lenhart	122, 122
Toy gun and pistol.....	H. M. Quackenbush	115, 638
Top-hoop.....	A. M. Hill	118, 855
Toy horse and carriage.....	J. B. Cuzner.....	112, 325
Toy, Humming.....	M. B. Sumner	116, 773
Toy-locomotive.....	A. L. Dewey	116, 568
Toy locomotive and track.....	E. Beggs	119, 006
Toy-monument.....	G. W. Fisher	121, 936
Toy-pistol.....	H. M. Quackenbush	122, 193
Toy-projector.....	E. V. B. Hoes.....	119, 358
Toy-propeller.....	A. M. Allen	112, 104
Toy-propeller, Single-wheel.....	W. Sellers	118, 977
Toy-puzzle.....	S. Loyd	112, 823
Toy-ring.....	W. Hutchings.....	115, 962
Toy steam-engine.....	R. Frisbie	118, 007
Toy steam-engine.....	A. Buckman	121, 702
Toy-toad.....	J. Fallows	118, 441
Toy-toad.....	J. Fallows	121, 502
Toy-whistle.....	M. Miller	115, 628
Trace-carrier.....	R. Porter	111, 473
Trace-fastener.....	A. B. Dowell	114, 654
Trace-hook attachment.....	J. B. Hook and J. S. Shrawder.....	116, 067
Trace-lock.....	G. L. Hart	116, 052
Track-clearer.....	H. Fellows	112, 575
Traction-engines, Mode of attaching plows to.....	W. H. H. Heydrick.....	118, 013
Traction-wheels, Rubber-block tire for.....	G. W. Fitts	117, 760
Tramway-saddle.....	J. C. Robinson	121, 297
Transmitting and distributing motive-power, Machine for.....	J. Richmond	111, 251
Transmitting and reversing rotary motion, Device for.....	W. H. Merrick	112, 269
Transmitting power and changing the speed.....	S. Hialt	111, 539
Transom or king-bolt and rocker-plate for carriages.....	J. A. Judd	119, 463
Transplanter.....	J. E. Waite	120, 801
Transplanting-device.....	J. W. Brook	117, 378
Trap and catch-basin, Sewer.....	A. B. Ashman and A. H. Newell.....	122, 209
Trap, Animal.....	G. L. Hart	110, 973
Trap, Animal.....	J. C. Parrish	111, 673
Trap, Animal.....	A. A. Hotchkiss.....	111, 745
Trap, Animal.....	E. Oliver	111, 771
Trap, Animal.....	S. H. and H. C. Hart.....	111, 841
Trap, Animal.....	W. D. Wrightson	112, 403
Trap, Animal.....	J. D. Bell	112, 844
Trap, Animal.....	J. W. F. How	113, 168
Trap, Animal.....	C. B. Veronee	113, 371
Trap, Animal.....	J. N. Stow and R. Loop.....	114, 062
Trap, Animal.....	C. Long	115, 222
Trap, Animal.....	W. W. Brigg	116, 017
Trap, Animal.....	B. C. Smith	117, 005
Trap, Animal.....	E. Hause and L. Kelley	117, 072
Trap, Animal.....	G. S. Walker	118, 309
Trap, Animal.....	J. Biddle	118, 581
Trap, Animal.....	J. H. Mooney and G. A. Loyd.....	119, 237
Trap, Animal.....	T. Fell	119, 592
Trap, Animal.....	H. Foust	119, 594
Trap, Animal.....	N. Rasmussen.....	119, 645

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Trap, Animal.....	J. F. Coppock.....	119, 826
Trap, Animal.....	G. R. Harding.....	120, 063
Trap, Animal.....	H. S. Frost.....	120, 375
Trap, Animal.....	N. S. Howell.....	120, 577
Trap, Animal.....	O. S. Ewing.....	120, 953
Trap, Animal.....	M. D. Brown.....	121, 324
Trap, Animal.....	H. Polley.....	121, 463
Trap, Animal.....	D. M. Francisco.....	121, 603
Trap, Animal and game.....	J. H. Richardson.....	114, 343
Trap-ball.....	C. F. Spencer.....	115, 252
Trap, Fish.....	J. E. Hammond.....	113, 292
Trap, Fly.....	P. D. Horton and E. T. Bryan.....	111, 936
Trap, Fly.....	C. R. Hardy.....	113, 515
Trap, Fly.....	E. Victor.....	117, 459
Trap, Fly.....	B. J. Leslie.....	118, 373
Trap, Fly.....	L. Grim.....	118, 852
Trap, Fly.....	S. F. McGown.....	120, 449
Trap, fly, Automatic.....	F. L. Rosentreter.....	118, 747
Trap for wash-boilers.....	H. R. Robbins.....	119, 649
Trap, Game and rat.....	B. F. Tatem.....	120, 683
Trap, Insect.....	L. I. Way.....	116, 652
Trap, Insect.....	S. Endsloew.....	119, 337
Trap, Insect.....	T. Wier.....	119, 905
Trap, Insect.....	J. J. Armstrong.....	120, 020
Trap, Insect.....	C. E. Penny.....	120, 595
Trap, Mole.....	J. Adams.....	110, 618
Trap, Mole.....	D. Boswell.....	118, 189
Trap, Mole.....	G. W. Hardwick.....	119, 354
Trap, Mouse.....	H. C. Hart.....	113, 051
Trap, Mouse.....	H. S. Weller.....	114, 629
Trap, Mouse.....	A. Ovaite.....	116, 743
Trap, Mouse.....	C. A. Hotchkiss.....	118, 721
Trap, Mouse and animal.....	G. L. Hart.....	112, 807
Trap, Rat and mouse.....	L. F. George.....	119, 598
Trap, Roach and bug.....	T. Williams.....	111, 291
Trap, Roach and mouse.....	W. I. Webb.....	119, 435
Trap, Roach or bug.....	J. M. Keep.....	115, 215
Trap, Sewer.....	S. Towle.....	116, 645
Trap, Steam.....	J. J. Jordan.....	113, 434
Trap, Steam.....	J. W. Hodges.....	114, 141
Trap, Steam.....	J. H. Blessing.....	114, 257
Trap, Steam.....	I. E. Giddings.....	115, 303
Trap, Steam.....	A. G. Bearup.....	115, 809
Trap, Steam.....	J. H. Blessing.....	116, 403
Trap, Steam.....	G. R. Moore.....	117, 009
Trap, Steam.....	R. Berryman.....	117, 372
Trap, Steam.....	N. H. Bundy.....	118, 786
Trap, Steam.....	J. E. Watts.....	122, 086
Trap, Steam.....	H. S. Maxim.....	122, 272
Trap, steam, Automatic.....	W. E. Prall.....	121, 962
Trap, Stench.....	S. Lawrence.....	116, 967
Trap, Stench.....	M. Gafney.....	120, 427
Traveler for vessels.....	D. N. B. Coffin.....	119, 969
Traveling-bag, &c.....	C. M. Shutz.....	116, 760
Tray-holder.....	O. Fahstock.....	111, 186
Trays, wooden, Machine for making.....	D. M. Cummings.....	119, 823
Treadle.....	G. R. Proctor.....	112, 488
Treadle.....	A. B. Shaw.....	113, 210
Treadle.....	G. B. Kirkham.....	113, 776
Treadle.....	G. K. Proctor and F. K. Hamilton.....	114, 599
Treadle.....	R. P. Knapp.....	114, 530
Treadle.....	G. K. Proctor.....	118, 971
Treadle.....	A. B. Shaw.....	120, 461
Treadle-bearing and oil-shield.....	N. D. Stoops.....	114, 621
Treadle-brace.....	G. H. Hurd.....	120, 643
Treadle-motion.....	E. B. Keyes.....	112, 720
Treadle-motion.....	E. W. Keyes and C. K. Bradford.....	120, 200
Treadle-power.....	W. Reed.....	118, 273
Tree-box.....	E. O. Schwagerl.....	115, 531
Tree-protector.....	C. Parks.....	110, 996
Trees, Machine for felling.....	E. R. Morrison.....	115, 975
Tree-tub.....	J. Booher.....	114, 638
Tremolo-attachment for reed-instruments.....	E. P. Needham.....	117, 666
Tremolo for reed-organs.....	L. K. Fuller.....	121, 609
Tremolo for reed-organs.....	L. K. Fuller.....	121, 610
Tremolo for reed-organs, &c.....	J. R. Lomas.....	117, 783
Trigonometry, Apparatus for illustrating.....	E. H. Hickman.....	115, 318
Trimming and burnishing soles, Machine for.....	S. H. Hodges.....	117, 287
Trimming, Center-point.....	A. Hecht.....	112, 915
Trip-hammer.....	B. Hershey.....	112, 036
Trip-hammer.....	J. Krehbiel.....	117, 432

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Triturator	E. Brady	112, 213
Trough, Invertible.....	F. J. Goldsmith	111, 529
Truck, Baggage.....	W. H. Brown	111, 104
Truck, Car.....	E. Hipkins	111, 934
Truck, Car.....	R. Winslow	115, 261
Truck, Car.....	W. H. and C. H. Little	117, 182
Truck, Car.....	F. D. Dellinger and S. H. Hunt	118, 518
Truck, elevating.....	D. Wagner and W. K. Bushnell	114, 730
Truck for locomotive-engines	C. H. Lathrop	119, 857
Truck for moving mounted car-axes	C. F. Scoville	117, 337
Truck, Hand	T. F. Kiff	116, 325
Truck, Piano	C. A. French	119, 025
Truck, Railway-car	L. D. Boyce and G. H. Jones	111, 172
Truck, Railway-car	C. Graham	111, 340
Truck, Railway-car	F. S. Harrington	113, 878
Truck, Railway-car	J. Clark	118, 515
Truck, Railway-car	J. R. Mestier	118, 961
Truck, Railway-car	J. G. Wetmore	120, 013
Truck, Railway car and engine	G. F. Morse	114, 587
Truck, railway-car, King-bolt for	S. W. Murray and B. M. Lamason	114, 028
Trucks, Railway-alarm for	F. E. Whiteside	115, 003
Truck, Store	A. V. Smith	114, 213
Truck, Warehouse.....	J. S. Cochran	113, 263
Trunk	J. Young	113, 715
Trunk	J. Stanton	114, 485
Trunk	N. Stewart	115, 905
Trunk	E. A. G. Roulstone	116, 492
Trunk	T. Hanvey	117, 625
Trunk	N. Groel	119, 348
Trunk	H. S. Farley	119, 341
Trunk, Bureau traveling.....	H. McKinnon	113, 538
Trunk-fastener	D. W. Brockway	113, 974
Trunk-fastening	L. Ransom	114, 195
Trunk, Hard-rubber	W. C. Spellman	117, 216
Trunk-lid guide.....	L. Hillebrand and D. Wolf	120, 067
Trunk-lid support	G. H. Johnson and F. Bottner	121, 786
Trunk, Life-preserving.....	L. Rebstock	114, 475
Trunk, Traveling.....	H. Hubbard	111, 830
Trunk, Traveling.....	J. C. Locke	112, 937
Truss	A. Folleau	111, 115
Truss	C. E. Van Alstine	111, 495
Truss	H. Hinault	112, 457
Truss	H. Howe	112, 709
Truss	W. Pomeroy	115, 098
Truss	N. Jones	119, 233
Truss	S. S. Ritter	120, 537
Truss-hook	E. C. Ryding	118, 281
Truss-pad	J. B. Marsh	119, 379
Try-square, Adjustable	L. Bailey	114, 634
Tub, &c	E. A. Firby	117, 163
Tub, Butter	C. H. White	113, 122
Tube-cleaner	P. Farley	116, 823
Tube-expander.....	C. H. Clark	119, 121
Tube-extractor.....	I. S. Peters	111, 146
Tube for grain-drills, &c., Vulcanized rubber	J. R. Bird	114, 394
Tube-holder	T. Arnold	111, 418
Tubes, flues, &c., Apparatus for cleaning	C. Lungley	114, 695
Tube-skelps, Machine for bending	G. Mateson	121, 057
Tubes, Machine for welding	W. C. Allison	111, 299
Tubings, Mode of reducing the diameters of	E. Wheeler	117, 494
Tub, Mashing	J. C. Birket	119, 072
Tub, pail, &c	P. H. Niles	115, 088
Tubular fabrics, Weaving	G. Smith	111, 783
Tug for harness.....	I. H. Alexander	119, 684
Tug for towing boats	W. Everson	110, 754
Tumbler for permutation-locks	W. Koch	117, 302
Tumbling-shaft	D. Snell	114, 616
Tunneling-machine	C. J. P. and L. Griscom and J. Fritz	118, 010
Turbine	M. K. A. Brooks	113, 489
Turbine	J. J. Knowlton	115, 217
Turbine	J. C. Boyland and G. Buchanan	116, 405
Turbine	A. Bee	119, 558
Turbine	S. Stevenson	119, 664
Turbine	M. W. and J. T. Obenchain	122, 275
Turn-batton for doors, &c	P. Bradford	119, 499
Turning and boring machine, Hand	J. F. Finger	113, 038
Turning and polishing, Machine for	R. M. Clapp	119, 695
Turning-lathes, Drill-rest for.....	H. H. Folsom	111, 736
Turn-pipe, Hydraulic.....	S. Adams	111, 600
Turn-table	W. S. Coulter	122, 229
Turn-table.....	G. Walters	113, 953

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Turn-table for railways	C. H. Fisher	119, 593
Turn-table for transferring freight	G. French	119, 595
Turpentine, &c., Apparatus for distilling	C. J. T. Burcey	115, 429
Turpentine, Apparatus for distilling	A. K. Lee	117, 549
Turpentine, Apparatus for distilling	A. H. Van Bokkelen	118, 305
Turpentine-box	W. B. Hamilton	115, 313
Turpentine from trees, Extracting	B. I. Hazard	111, 743
Tuyere	P. Sweeny	112, 192
Tuyere	E. Trasy	112, 866
Tuyere	J. Wood, jr.	114, 739
Tuyere	J. Cappon	116, 264
Tuyere	T. S. Clark	117, 744
Tuyere	P. L. Weimar	117, 947
Tuyere	A. M. Worthing	121, 072
Tuyere	S. Parsons	122, 190
Tuyere, Blacksmiths'	J. Bauer	117, 145
Tuyere for blast-furnaces	J. Fry	112, 914
Tuyere for cupola-furnaces	E. Lawrence	114, 158
Tuyere-iron	J. Nelson	121, 189
Tuyeres, Machine for molding	S. English	111, 922
Tuyere, Water	S. Williamson	118, 321
Twine and cord, Mode of forming balls of	H. B. Lawton	110, 980
Twine-holder	E. M. Judd	112, 465
Twine-holder	J. B. Sargent and P. Bradford	112, 501
Twine-holder	J. Adt	116, 911
Twist-drill	B. Arnold	118, 178
Twist-drills, Machine for slotting the shanks of	B. Arnold	118, 179
Twisting and spinning head	J. W. Chappell	115, 435
Type-blocks, Process of manufacturing	D. A. Draper	112, 562
Type-casting machine	W. W. Dunn	111, 111
Type-composing and casting machine, Combined	C. S. Westcott	115, 796
Type-distributing machine	J. T. Slingerland	115, 777
Type, Elastic	H. J. Davies	114, 773
Type-holder	W. McNaughton	111, 663
Type-setting and distributing machine	F. M. Neff and J. E. Scruggs	113, 912
Type-setting and distributing machine	D. B. Ray	120, 398
Type-setting machine	T. J. Plunket	114, 850
Type-wheel for printing-telegraphs	R. H. Gallaher	116, 175
Typographer, Mechanical	C. L. Sholes	118, 491
U.		
Umbrella	N. Starr	111, 487
Umbrella	J. Willis	112, 307
Umbrella	R. P. Knapp	114, 823
Umbrella	W. A. Drown	115, 720
Umbrella	G. G. Griswold	116, 586
Umbrella	W. Watson	116, 899
Umbrella	J. Shepherd	119, 888
Umbrella-runner or notch	O. M. Smith	116, 767
Umbrellas on vehicles, Apparatus for holding and adjusting	G. F. Child	116, 157
Under-garment, Skin	J. H. Andrus	113, 123
Unwinder for booked tobacco	G. Storm	121, 683
Upholstery-spring	C. E. Patric	117, 674
Upright piano-forte action	A. H. Hastings	116, 182
Urinal for railroad-cars	J. L. Howard	119, 147
Urinal, Seated	D. Gibbons	120, 960
Urn and spice stand, Revolving	W. J. Evans	121, 091
Urn for stoves	O. F. Mack	112, 160
Urn-stand, Revolving	W. J. Evans	115, 239
Using electricity as a remedial agent, Apparatus for	G. Munro	112, 270
Utensil, Household	H. R. Halsey	118, 125
Uterine and prolapsus ani supporter	A. M. Dye	114, 538
Uterine supporter	W. S. Van Cleve	118, 073
Uterine supporter	L. D. McIntosh	118, 378
Uterine supporter	J. S. Shannon	120, 674
Uterine supporter	A. Lowe	122, 040
Utilizing the silky down of the wild cotton	M. H. Simpson	112, 391
V.		
Vacuum-cups, Attachment for	W. Amer	116, 004
Valve	G. Murray	111, 373
Valve	J. Johnson	112, 047
Valve	J. Lewis	114, 572
Valve	E. McSteen	116, 619
Valve	J. Warren	117, 704
Valve	S. J. Peet	120, 664
Valve and cock	I. Dreyfus	111, 621
Valve and cut-off, steam, Rotary	H. Wright	120, 360

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Valve and port, Steam-engine.....	G. Westinghouse, jr.....	115, 668
Valve and steam-chest for engines.....	P. N. Woods.....	114, 078
Valve and valve-gear.....	W. Z. Hatcher.....	113, 428
Valve-arrangement for liquid-meters.....	J. Jonson.....	119, 364
Valve, Anti-friction.....	W. Siefert.....	113, 102
Valve, Balance.....	K. H. Loomis.....	114, 162
Valve, Balance.....	A. Wanch.....	113, 600
Valve, Balance slide.....	A. G. Barrett.....	113, 616
Valve, Balance slide.....	C. H. Hutchinson.....	119, 769
Valve, Balance slide.....	J. Rigby and J. Holt.....	119, 789
Valve, Canal-lock.....	G. Heath.....	113, 661
Valve, Combined pressure and vacuum.....	J. Porteous.....	115, 982
Valve connection, Governor.....	J. F. Allen.....	111, 897
Valve, cut-off, Adjustable.....	G. W. Smith.....	122, 198
Valve-device for steam-power air-brake coupling.....	G. Westinghouse, jr.....	116, 655
Valve, Electro-magnetic.....	G. M. Sternberg.....	119, 541
Valve, Exhaust.....	R. W. Hamilton.....	116, 707
Valve for condensers.....	G. H. Reynolds.....	112, 183
Valve for oil-pumps.....	H. Millingar.....	110, 930
Valve for oil-tanks.....	D. Fisher and W. Cumming.....	113, 153
Valve for steamboat-engines.....	A. M. Haley.....	120, 269
Valve for steam and air engines, Oscillating.....	I. W. Forbes.....	115, 296
Valve for steam and air engines, Oscillating.....	I. W. Forbes.....	115, 297
Valve for steam-boilers, Safety.....	A. J. Prescott.....	121, 659
Valve for steam-pump and engines.....	W. B. Snow.....	118, 064
Valve for steam-pumps.....	J. V. V. Booraem.....	113, 248
Valve for steam-pumps.....	J. F. Hamilton.....	111, 341
Valve for steam-pumps.....	J. V. V. Booraem.....	113, 247
Valve for steam-pumps, &c.....	J. W. Hopkins.....	119, 030
Valve for steam-pumps, Balance.....	J. P. Pangburn.....	117, 808
Valve for steam-engines.....	J. L. Harley.....	112, 451
Valve for steam-engines.....	H. L. Butler.....	120, 033
Valve for steam-engines.....	C. B. Smith.....	121, 905
Valve for steam-engines, Balance.....	N. Jenkins.....	113, 523
Valve for steam-engines, Balanced.....	J. F. Sweet.....	119, 427
Valve for steam-engines, Balanced.....	D. W. Huntington and W. A. Hempstead.....	120, 878
Valve for steam-engines, Cut-off.....	S. M. Carter.....	118, 340
Valve for steam-engines, Slide.....	I. W. Forbes.....	115, 298
Valve for steam-engines, Slide.....	I. W. Forbes.....	115, 299
Valve for water-engines.....	A. Coates and G. W. Lascell.....	111, 908
Valve-gear.....	W. R. Reece.....	110, 935
Valve-gear.....	T. E. Evans, W. R. Thomas, and J. Hunt.....	119, 590
Valve-gear, Cut-off.....	S. H. Whitmore.....	113, 232
Valve-gear for direct-acting engines.....	A. S. Cameron.....	112, 015
Valve-gear for engines.....	L. Atwood.....	117, 141
Valve-gear for steam-engines.....	I. W. Forbes.....	115, 300
Valve-gear for steam-engines.....	A. S. Cameron.....	112, 899
Valve-gear for steam-engines.....	J. C. Macdonald.....	122, 269
Valve-gear for steam-engines, Cut-off.....	J. Montfort.....	118, 873
Valve-gear of pumping-engines.....	H. Lee.....	117, 570
Valve-gear, Throttle.....	C. A. Stewart.....	115, 904
Valve, Globe.....	M. Murphy.....	114, 844
Valve, Globe and check.....	G. W. Shields.....	118, 287
Valve, Hose-pipe.....	A. F. Allen.....	117, 853
Valve-indicator.....	J. C. Chapman.....	121, 587
Valve-movement.....	F. Glasson.....	119, 755
Valve-motion.....	S. Ingersoll.....	115, 478
Valve of steam-pumping engines.....	L. M. Gilbert.....	115, 726
Valve-operating mechanism for water-meter.....	O. H. Landon.....	116, 200
Valve or bottom for separating slate from coal.....	S. E. Griscom.....	119, 757
Valve, Pump.....	C. L. Merrill.....	111, 763
Valve, Pump.....	A. S. Cameron.....	113, 397
Valve, Pump.....	D. Metz.....	117, 661
Valve, pump, Oil.....	T. Draper.....	116, 820
Valve, Regulator and safety.....	B. Holly.....	113, 517
Valve, relief, Automatic.....	A. F. Allen.....	113, 829
Valve, relief, Automatic.....	A. F. Allen.....	120, 925
Valve, relief, Automatic.....	J. Garland.....	120, 958
Valve, Rotary.....	D. Snowhill and J. D. Bown.....	121, 677
Valve, Safety.....	S. C. Marsh.....	112, 611
Valve, Safety.....	M. and E. Scrannage, jr.....	113, 445
Valve, Safety.....	A. F. W. Neynaber.....	116, 084
Valve, Safety.....	J. B. Edson.....	117, 872
Valve, Safety and vacuum.....	H. Hibberd.....	120, 519
Valves, Automatic apparatus for opening and closing, by the effects of temperature.....	A. A. Common.....	116, 273
Valve-seats, Device for grinding the flat face of.....	S. J. Peet and D. Sawyer.....	111, 966
Valve, Slide.....	J. C. Woodhead.....	112, 002
Valve, Slide.....	A. K. Rider.....	114, 344

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Valve, Slide.....	J. M. Coale	115, 706
Valve, Slide.....	I. Martin and D. B. Perrow	115, 878
Valve, Slide.....	A. R. Rider	116, 099
Valve, Sliding-stop.....	H. G. Ludlow	119, 378
Valve, Steam.....	A. S. Cameron	112, 684
Valve, Steam.....	M. C. Rerdell.....	118, 817
Valve, Steam.....	W. F. Gould	121, 358
Valve, Steam, and governor.....	R. Sanderson.....	114, 865
Valve, Steam-engine.....	C. P. Deane	110, 835
Valve, Steam-engine.....	N. Page	113, 810
Valve, Steam-engine.....	S. H. Whitmore	113, 956
Valve, Steam-engine.....	N. P. Stevens	116, 370
Valve, steam, Rotary.....	J. F. Tallant	121, 018
Valve, Steam-safety.....	G. H. Cemens	112, 222
Valves, Tool for packing.....	J. E. Hooper	118, 131
Valve, Stop.....	J. Paterson	111, 242
Valve, Stop.....	J. Paterson	111, 241
Valve, Stop.....	S. Broadbent and W. B. Culver.....	112, 216
Valve, Stop.....	J. L. Peake	113, 337
Valve, Stop.....	J. H. Strehli	114, 725
Valve, Stop.....	J. Walsh	115, 794
Valve, Stop.....	R. P. Ross	117, 466
Valve, Stop.....	E. Russell	117, 689
Valve, Stop.....	W. Haas	118, 715
Valve, Stop.....	A. Snyder.....	119, 057
Valve, Stop.....	F. D. Livingston	120, 292
Valve, Stop-cock.....	G. Pierce	114, 338
Valve, water and steam, Process of constructing.....	S. J. Peet and S. J. Willis.....	121, 542
Valve, water, Automatic.....	J. Guild	114, 804
Valve, Water-closet.....	A. J. Smith	112, 393
Valve, Water-closet.....	W. Gordon	113, 875
Valve, Water or steam.....	R. Berryman.....	111, 032
Valve-bath, Apparatus for.....	G. F. Munroe	113, 911
Vapor-burning street-lamps, Apparatus for supplying naphtha to.	F. M. Randell.....	110, 866
Vapor-fuel, Apparatus and processes for generating and burning.	A. J. Works and H. A. Daniels.....	110, 946
Vapor-generator for vapor-engines.....	J. A. H. Ellis.....	111, 331
Varnish for coating and water-proofing.....	C. V. Chapin	115, 570
Varnish for coating the surfaces of bobbins or spools.....	W. Brooks	115, 816
Varnish for destroying insect life.....	T. J. Elliott.....	120, 812
Vat, Cheese.....	F. E. Day	122, 232
Vat, Tanning.....	J. W. Coburn	122, 157
Vase, Self-watering.....	W. M. Bingham and H. Bemis	116, 401
Vault for sewers.....	L. D. Treadway.....	121, 219
Vault-light.....	J. C. French	117, 062
Vault-light.....	J. C. French	117, 063
Vegetable and animal substances, Apparatus for making extracts from.	L. Brauer	113, 844
Vegetable and fruit peeler.....	O. F. Mayhew.....	115, 624
Vegetable fibers, Process of obtaining.....	W. Adamson and F. A. Simonin.....	117, 852
Vegetable-slicer.....	R. James and J. W. Currier	118, 944
Vehicle.....	C. Elliott	116, 284
Vehicle.....	W. Keppel and H. Huffsey	116, 523
Vehicle.....	C. Thomas	111, 492
Vehicle.....	R. Jack	114, 149
Vehicles, Brake-block for.....	J. W. Spore	115, 129
Vehicles, Check-spring for.....	C. Scherich	118, 648
Vehicles, Dash-board for.....	H. I. Goodwin.....	117, 619
Vehicles, Draught-device for.....	J. S. Tibbets	117, 829
Vehicles, Fifth-wheel for.....	J. P. Smith	115, 122
Vehicles, Fifth-wheel for.....	P. H. Cummins	118, 347
Vehicles, Fifth-wheel and coupling for.....	E. M. Silsby	119, 417
Vehicles, Hold-back attachment to.....	J. Thornton and E. G. Latta.....	122, 078
Vehicles, Hold-back for shafts of.....	J. Armstrong	120, 477
Vehicles, Metallic hub for.....	J. Dump	118, 704
Vehicles, Mode of attaching springs to.....	T. H. Allen	121, 570
Vehicles, Rub-iron for.....	D. D. Stelle	118, 402
Vehicles, Running-gear for.....	J. L. Corbus	116, 160
Vehicles, Safety-shaft for.....	J. S. Tibbets	116, 889
Vehicles, Shifting-seat for.....	H. Nagle.....	120, 312
Vehicle, Spring.....	A. Reichert.....	116, 756
Vehicles, Spring for.....	B. Hershey and R. Dudley	112, 037
Vehicles, Spring for.....	J. R. Hiller.....	112, 340
Vehicles, Transient bolt for.....	C. G. Holsten	114, 821
Vehicles, Wheels for.....	J. Weathers	112, 099
Vehicles, Wheel for.....	J. R. Mills	113, 441
Vehicles, Wheel for.....	D. Mulock	112, 167
Vehicles, Wheel-hub for.....	D. Davis.....	118, 589
Vehicles, Wheel for.....	D. Davis.....	118, 590
Vehicle, Wheeled.....	J. F. Cass	117, 257

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Velocipede.....	W. L. Williams.....	111, 597
Velocipede.....	M. Staudt.....	112, 646
Velocipede.....	B. Jansen.....	115, 212
Velocipede.....	M. Martin.....	116, 205
Velocipede.....	S. Johnson.....	117, 638
Velocipede.....	J. A. Crandall.....	118, 695
Velocipede, Cotton-picker.....	L. M. Asbill.....	120, 478
Velocipede, Sleigh.....	W. Erd.....	114, 783
Veneer-cutting machine.....	T. Hanvey.....	114, 134
Veneering into strips, Machine for cutting.....	G. W. Manton.....	113, 071
Vent-bung.....	B. R. Cole.....	116, 810
Vent-bung.....	C. H. Miller and W. Ascough.....	118, 811
Ventilating grain-vessels.....	W. S. Sampson.....	120, 108
Ventilating grain-cars.....	W. S. Sampson.....	120, 109
Ventilator.....	W. Ennis.....	110, 641
Ventilator.....	W. Ennis.....	110, 838
Ventilator.....	E. M. Deey.....	110, 905
Ventilator.....	G. W. Barker.....	111, 718
Ventilator.....	D. M. Sprogle and J. E. Dickson.....	112, 190
Ventilator.....	B. F. Miller.....	115, 339
Ventilator, Railroad-car.....	H. A. Gouge.....	116, 049
Ventilator.....	R. White.....	120, 138
Ventilator.....	A. Marriott.....	121, 639
Ventilator.....	N. Jones.....	116, 319
Ventilator and chimney-top.....	J. McGowan.....	112, 475
Ventilator for hats and caps.....	W. Dale.....	120, 629
Ventilator for railroad-cars and dwellings.....	J. Bradley.....	114, 102
Ventilator for ships.....	W. F. J. Thiers.....	117, 484
Ventilator, Hat.....	S. Beatty.....	117, 506
Ventilator or blower.....	J. F. Collins.....	110, 898
Ventilator, Railroad-car.....	C. P. Tillinghast.....	110, 803
Ventilator, Railroad-car.....	J. M. Dexter.....	110, 906
Ventilator, Railroad-car.....	W. C. Betts.....	110, 950
Ventilator, Railroad-car.....	A. B. Sweetland.....	116, 776
Ventilator, Railroad-car.....	J. L. Howard.....	117, 079
Ventilator, Railroad-car.....	J. L. Howard.....	117, 281
Ventilator, Railroad-car.....	O. W. Swift.....	117, 949
Ventilator, Rail-roadcar.....	G. B. Hall and J. Shaffer.....	119, 349
Ventilator, Railroad-car.....	E. H. Winchell.....	119, 800
Ventilator, Railroad-car.....	D. C. Justison.....	120, 982
Ventilator, Railroad-car.....	G. A. Hines.....	119, 983
Ventilators, Mechanism for.....	A. L. Pennock.....	116, 482
Vent-plug.....	C. H. Miller.....	111, 664
Vermin, Compound for exterminating.....	A. E. Pearl.....	115, 514
Vermin-exterminator.....	T. W. Howchin.....	120, 197
Vertical screw water-wheel.....	D. K. Kraatz.....	118, 863
Vessel, Culinary.....	J. H. Chappel.....	111, 317
Vessel, Culinary.....	F. Morandi.....	111, 369
Vessel, Culinary.....	C. Jessup.....	112, 352
Vessel, Culinary.....	L. Hermance.....	112, 916
Vessel, Culinary.....	W. H. Murch.....	113, 442
Vessel, Culinary.....	W. H. Bloom.....	113, 971
Vessel, Culinary.....	S. W. M. Chattaway.....	115, 703
Vessel, Culinary.....	S. Lee.....	118, 462
Vessel for carrying liquid cargoes.....	W. G. Warden.....	110, 942
Vessel for carrying liquid cargoes.....	W. G. Warden.....	120, 353
Vessel for holding oil.....	A. T. Woodward.....	111, 599
Vessels, Alarm-pump for.....	E. Haskell.....	120, 194
Vessels, Center-board for.....	A. G. Crossman.....	113, 984
Vessels, Composition-stopper for.....	M. W. Brown.....	121, 152
Vessels, Construction of.....	A. Wingard.....	119, 488
Vessels, Propeller for.....	L. De Sill.....	121, 163
Vessels, Propelling.....	M. K. Wildman.....	122, 301
Vessels, Propelling canal and other.....	J. Jochum.....	118, 244
Vessels, Propelling-mechanism for.....	E. Raynale.....	118, 151
Vessels, Propulsion of.....	G. A. Reidler.....	114, 637
Vessels, Propulsion of.....	P. Burk.....	114, 914
Vessels, Propulsion of.....	R. W. Heywood.....	115, 204
Vessels, Propulsion of.....	R. B. Boyman.....	115, 425
Vessels, Propulsion of.....	J. S. Stiles.....	116, 236
Vessels, Propulsion of.....	K. P. Cool.....	117, 051
Vessels, Propulsion of.....	W. M. Harding.....	118, 363
Vessels, Propulsion of.....	E. Harriott.....	118, 607
Vessels, Propulsion of.....	H. Waterman.....	119, 255
Vessels, Propulsion of.....	H. Jackson.....	119, 363
Vessels, Propulsion of.....	J. S. Godfrey.....	120, 264
Vessels, Propulsion of.....	S. F. Gard.....	120, 735
Vessels, Propulsion of.....	J. P. Bruce.....	120, 414
Vessels, Propulsion of.....	E. Whitehead.....	121, 738
Vessels, Propulsion of.....	C. Mickle.....	122, 046
Vessels, Steam-engine for screw-propeller.....	C. Wegschaidner and P. Bonette.....	118, 657

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Vessels, Traveler for	G. M. McClain	121, 643
Viaduct, Iron	C. S. Smith	111, 010
Vine-lock	E. F. Underhill	115, 662
Violin tail-piece	R. Kirk	116, 198
Vise	A. Crease	116, 932
Vise	J. A. Younce and G. W. Smith	118, 999
Vise	R. Phillips	119, 280
Vise	J. W. Coyne	119, 327
Vise	J. Simpson	119, 658
Vise	W. P. Harwood	113, 656
Vise	R. Porter	121, 895
Vise	H. V. Brown	115, 275
Vise	F. Higel	114, 817
Vise for joiners' use	J. Good	112, 801
Vise, Hand	J. W. Devlin	111, 618
Vise, Machinists'	J. D. Beck	121, 149
Vise, Machinists'	H. E. Long	120, 524
Vise, Saw-filers'	T. Terrell	117, 483
Vise, Saw-filers'	N. H. Baldwin	122, 144
Vote-recording machine	A. Weston	113, 376
Vulcanized rubber and combination hose and tubing, Manufacture of	J. Murphy	117, 447
Vulcanizing-apparatus	B. M. Hotchkiss	115, 207
Vulcanizing rubber sacks for stock-pumps	J. S. Patric	120, 093
W.		
Wagon	A. Moffitt	111, 665
Wagon	R. B. White	115, 797
Wagon	J. Skeen	117, 004
Wagon	M. Miller	118, 257
Wagon	F. W. Cole	120, 495
Wagon	J. Jenkins	121, 378
Wagon	W. A. Nichols	121, 403
Wagon	D. Mater, jr.	120, 758
Wagon and carriage seats, Corner-posts for	J. Roberts	117, 816
Wagon and plow, Steam	W. C. Bibb	119, 216
Wagon and sleigh box	A. R. Ambrose	121, 571
Wagon-bed, Adjustable and folding	S. Heffley and J. D. Pettitt	116, 308
Wagon-body	J. D. Pettitt	121, 409
Wagon body and rack	I. N. Hoyt	121, 623
Wagon-bolster stake	L. W. Shaeffer	113, 458
Wagon-box and hay-rack	S. Dickson	112, 559
Wagon-box and wagon-rack lifter	I. Van Kerzen	111, 021
Wagon-brakes, Rubber block-holder for	W. J. Lewis	111, 756
Wagon, Coasting	A. Brown	116, 409
Wagon, Dumping	S. D. and W. McCaleb	114, 173
Wagon, Dumping	J. Skeen	115, 244
Wagon, Dumping	J. and M. Broderick	118, 841
Wagon, Dumping	J. I. Wolf	120, 805
Wagon, Dumping	A. Iske	121, 459
Wagon, Dumping	L. B. Snow	121, 552
Wagon-hound	F. Smith	119, 420
Wagon-hound coupling-box and plate	W. J. Lewis	111, 755
Wagon-hubs, Seasoning	A. Benninghofen	115, 017
Wagon, Lumber	J. Skeen	112, 186
Wagon or carriage body	M. C. Boyer	120, 025
Wagon-reach	T. Laux	118, 540
Wagon, Road	T. H. Prushaw	120, 598
Wagons and carriages, Hollow axle for	W. A. Lewis	119, 863
Wagons and carriages, Wrought-metal axles for	W. A. Lewis	119, 868
Wagon-seat fastening	J. H. Fellows	117, 874
Wagon-seat fastening	E. Caswell	120, 035
Wagons, End-gate for	J. F. Sener	112, 968
Wagon-seat, Spring	A. Fassett	115, 454
Wagon-seats, Device for fastening	G. G. Heermance	121, 519
Wagon-seat standard	W. Campbell	119, 118
Wagons, Double tubular arch-axle for	W. A. Lewis	119, 869
Wagons, Fastening end-boards in	G. W. Diller	111, 091
Wagons, Iron running-gear for	J. Ball, sr	119, 106
Wagons, Shoe-brake for	A. Quinn	113, 091
Wagon side-brace	T. H. Daniels	115, 034
Wagons, King-bolt for	L. T. Swartwout	113, 595
Wagons, Slider for	V. M. Chafee	116, 682
Wagons, Mode of attaching seats to	J. L. Linville and W. Shimanour	112, 723
Wagons, Movable standard in	W. D. Fink	116, 289
Wagon-spindle	J. M. Walters	113, 710
Wagons, Rubber spring for	A. Higley	113, 664
Wagon-standard	J. Harding	114, 808
Wagon-standard	J. W. Smith	120, 115
Wagons, Standard for	J. Jensen	117, 637

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Wagon, Steam.....	O. H. Burdett	119, 308
Wagons, Thimble-skein for	H. H. Richards	118, 391
Wagons, Weighing-attachment to	W. H. McCormick	113, 543
Wagon-tongue support	J. Krehbiel	114, 443
Wagon-tongue support	W. Beers	115, 016
Wagon-tongue support	L. E. Stilwell	115, 133
Wagon-tongue supporter	C. J. Babcock	119, 297
Walking-cane and billiard-cue, Combined	C. A. Bogert	122, 213
Wall-papers, Manufacture of	W. Wilson	114, 632
Walls, ceilings, &c., Coating and decorating	C. T. Kemmer	111, 459
Walls, Composition for water-proofing	R. M. Caffall and D. Miller	119, 964
Wardrobe	H. Whittemore	119, 289
Wardrobe	A. Davis	120, 370
Wardrobe and bedstead	O. L. and W. Gardner	119, 268
Wardrobe and book-case	F. E. Voight	113, 821
Wardrobe, Portable	J. P. Buckingham	119, 074
War-game, Miniature	C. Portille	111, 969
Warping-chock for vessels	H. Truelsen	120, 131
Warping-machine	T. Singleton	110, 795
Warping-machines, Stop-motion for	E. H. Cummings, G. Hayes, and T. Entwistle	113, 023
Warping-machines, Stop-motion for	P. Wilson and J. Hunter	115, 403
Warps, Apparatus for coloring	N. D. White	116, 125
Wash-board	W. Todd	111, 589
Wash-board	C. Letterman	112, 820
Wash-board	H. H. Bellows	115, 416
Wash-board	W. H. Towers	120, 346
Wash-board	A. D. Smith	120, 831
Wash-bowl	C. Knowles	118, 026
Wash-bowl	W. Westlake	122, 089
Wash-boiler	S. S. Miles	111, 860
Washer and boiler, Combined	G. C. Taylor and J. B. Crisman	121, 136
Washer and wringer	P. Weatherbee	113, 227
Washer and wringer, Combined	J. H. Murray	114, 462
Washer, Anti-rattling	B. Morton	111, 964
Washer, Elastic	J. P. Verree	122, 141
Washers, Rolled metallic strips for	T. C. Hargrave	113, 427
Washing and wringing machine	J. Taber	114, 990
Washing and wringing machine	G. R. Clark	121, 042
Washing and wringing machine	J. S. Sandt	113, 352
Washing fluid	E. H. Neill	114, 464
Washing-machine	S. De Veau	110, 749
Washing-machine	S. J. Clark	110, 825
Washing-machine	A. O. Crane	110, 831
Washing-machine	A. Z. Young	110, 885
Washing-machine	E. P. Brown	111, 313
Washing-machine	A. J. Nave	111, 374
Washing-machine	W. G. Jones	111, 750
Washing-machine	W. H. Carman and R. P. McCollum	111, 906
Washing-machine	J. Court	111, 909
Washing-machine	E. W. Maxson	111, 953
Washing-machine	L. White	111, 909
Washing-machine	W. C. Batn and J. J. Kendall	112, 107
Washing-machine	T. Beebe	112, 110
Washing-machine	J. Taylor	112, 297
Washing-machine	J. W. Ricker	112, 382
Washing-machine	J. and L. M. Boswell, J. Palmer, and J. H. James	112, 411
Washing-machine	O. S. King	112, 603
Washing-machine	W. J. Dodge	112, 790
Washing-machine	E. Crick	113, 024
Washing-machine	E. Knock	113, 064
Washing-machine	G. S. Walker	113, 113
Washing-machine	A. M. Bailey	113, 130
Washing-machine	C. E. Carter	113, 254
Washing-machine	J. Osmun and J. Curl	113, 444
Washing-machine	J. E. Carroll and J. Lord	113, 493
Washing-machine	C. H. Berry	113, 727
Washing-machine	J. W. Groat	113, 762
Washing-machine	F. Utley	113, 943
Washing-machine	J. H. Doll	113, 987
Washing-machine	J. M. Noble	114, 030
Washing-machine	J. S. Balsby	114, 093
Washing-machine	H. A. Gaston	114, 126
Washing-machine	A. Assman	114, 250
Washing-machine	J. M. Kimball	114, 305
Washing-machine	J. A. Wood	114, 380
Washing-machine	E. R. Chamberlain	114, 643
Washing-machine	J. Robinson	114, 715
Washing-machine	N. G. Clary	114, 764
Washing-machine	G. F. Jordan	114, 826

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Washing-machine	L. R. Mills	114, 840
Washing-machine	W. C. Marr and J. S. Maughlin	115, 076
Washing-machine	C. P. Remington	115, 105
Washing-machine	H. Warner	115, 139
Washing-machine	F. L. Copps	115, 170
Washing-machine	T. Tebow	115, 263
Washing-machine	N. Booth	115, 272
Washing-machine	J. Brown	115, 276
Washing-machine	B. Kinne	115, 325
Washing-machine	L. Putnam	115, 355
Washing-machine	F. W. Dustin	115, 721
Washing-machine	W. N. Faucett	115, 723
Washing-machine	N. H. Stallins	115, 780
Washing-machine	F. M. Ellis	115, 835
Washing-machine	T. H. Stewart	116, 111
Washing-machine	M. K. Morris	116, 209
Washing-machine	H. L. Richardson	116, 488
Washing-machine	G. L. Witsill	116, 525
Washing-machine	M. S. Marshall	116, 614
Washing-machine	W. Lewis	116, 971
Washing-machine	P. Nichols	117, 102
Washing-machine	M. Van Auken	117, 126
Washing-machine	W. McCord	117, 188
Washing-machine	T. B. Neill	117, 197
Washing-machine	S. Decker and F. Ayres	117, 265
Washing-machine	D. Werst	117, 353
Washing-machine	C. Fortin	117, 400
Washing-machine	E. D. Kitchen	117, 429
Washing-machine	T. A. Massie	117, 792
Washing-machine	C. T. Shadbolt	117, 472
Washing-machine	I. H. Adams	117, 499
Washing-machine	J. Matthias	117, 554
Washing-machine	J. M. Clark	117, 603
Washing-machine	E. Jennings	117, 636
Washing-machine	W. Clack	117, 740
Washing-machine	G. L. Witsill	117, 846
Washing-machine	A. T. Sullivan	117, 940
Washing-machine	H. C. Horsey	118, 014
Washing-machine	J. W. Thompson	118, 071
Washing-machine	R. E. Ferguson	118, 120
Washing-machine	S. Smith	118, 162
Washing-machine	L. M. Doddridge	118, 219
Washing-machine	H. F. Keeney	118, 247
Washing-machine	C. J. Weld	118, 312
Washing-machine	T. S. Lewis	118, 374
Washing-machine	J. W. Ricker	118, 487
Washing-machine	W. C. Marr, J. S. Maughlin, and G. A. Davis	118, 543
Washing-machine	J. Schermerhorn	118, 558
Washing-machine	J. Lawson	118, 618
Washing-machine	J. K. Nelson	118, 637
Washing-machine	J. W. James and J. Street	118, 774
Washing-machine	J. C. Wismer	118, 998
Washing-machine	P. Young and N. Doll	119, 069
Washing-machine	P. Young and N. Doll	119, 070
Washing-machine	H. E. Lea	119, 089
Washing-machine	N. Crockett	119, 125
Washing-machine	J. H. Schmidt	119, 244
Washing-machine	J. P. Eshleman	119, 338
Washing-machine	J. H. Palmer	119, 396
Washing-machine	J. Varney	119, 432
Washing-machine	W. Martin	119, 629
Washing-machine	J. W. Hampton	119, 845
Washing-machine	J. H. Lee	119, 859
Washing-machine	A. H. Calkins	119, 965
Washing-machine	S. Williams and H. McNeill	120, 175
Washing-machine	T. W. Miller	120, 310
Washing-machine	F. A. Farley	120, 373
Washing-machine	G. Leach	120, 286
Washing-machine	W. J. Dodge	120, 504
Washing-machine	J. Fox	120, 636
Washing-machine	S. Williams and H. McNeill	120, 691
Washing-machine	M. P. Colvin	120, 717
Washing-machine	M. L. Tompkins	120, 797
Washing-machine	W. Arnold	120, 809
Washing-machine	J. Brower, and J. and H. Campbell	120, 848
Washing-machine	J. R. Cazier	120, 939
Washing-machine	J. J. Schroyer	121, 203
Washing-machine	J. Abbott	121, 307
Washing-machine	J. A. Boyce	121, 322
Washing-machine	D. Bradley and A. Doney	121, 323

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Washing-machine	C. Larrabee	121, 461
Washing-machine	O. L. Dorr	121, 598
Washing-machine	F. P. Shaw and J. Bringman	121, 672
Washing-machine	J. F. Chesebro	121, 753
Washing-machine	O. J. Rider and J. C. Bryant	121, 814
Washing-machine	R. M. Bruce	121, 844
Washing-machine	G. H. Miller	121, 883
Washing-machine	J. B. Wilson	122, 093
Washing-machine	T. M. Brintnall and W. E. Powers	122, 150
Washing-machine boiler	J. Curtis	115, 174
Washing machine, Carriage	O. P. Weston	118, 085
Washing-machines, Agitator for	V. Vanderburgh	118, 074
Washing-machines, Driving-attachment to	W. M. Johnston	115, 867
Washing-mitt, Elastic	M. Cadwell	118, 790
Washing-pounder	A. F. Dinwiddie	120, 725
Wash-stand, bureau, and toilet-table, Combined	H. Whitemore	119, 290
Wash-stand, Folding	D. O. Parker	118, 478
Wash-tub	A. M. Cushing	117, 154
Waste of alcohol in fermenting-tanks, Preventing	C. H. Frings	116, 044
Waste-picker	R. Kitson	116, 841
Waste-pipe for sinks	J. L. Oliver	118, 548
Waste-way stopper	J. R. Gibsen and J. Powell	117, 402
Watch, Calendar	A. C. Ionais	116, 316
Watch-cases, Machine for making	C. L. Thiery	121, 474
Watch-case spring	W. Fenimore	115, 455
Watch-chain fastening	D. F. Myers	116, 858
Watch-chains, Joining for	C. Croselmaire	116, 816
Watch chains or guards, Safety-attachment for	C. W. Mehrer	118, 960
Watches, Attaching the hair-springs of	C. Wadsworth and C. Cullberg	112, 657
Watches, &c., Lever-staff for	W. E. Banta	117, 242
Watch-escapment	A. Coombs	121, 337
Watch-escapement	D. J. Mozart	121, 401
Watches, Dust-ring for	G. Hunt	119, 768
Watches, Mainspring-attachment for	C. E. Rice	121, 004
Watches, Pallet of	A. Wadsworth	114, 372
Watch-regulator	J. Elson	113, 281
Watches, Replaceable pivot for	S. B. Simon	120, 335
Watches, Show-case for	I. S. Huckins	121, 171
Watch-key	J. L. Moore	116, 982
Watch-key and cork-screw, Combined	L. J. Jenner	118, 456
Watch-key, swivel, and hook, Combination of	J. P. Allen and H. Croft	116, 913
Watch-makers' chuck	J. Mansir	120, 988
Watchmakers' chuck	H. H. Heskett	116, 591
Watchman's time-check	A. Meyer	117, 442
Watchman's time-check	L. A. G. Velle and J. Ls. Robellaz	122, 292
Watch, Stem-winding	W. H. Fitzgerald	111, 334
Watch, Stem-winding	E. H. Perry	115, 351
Watch, Stem-winding	S. J. and J. J. Jaques	117, 782
Watch, Stem-winding	C. V. Woerd	118, 415
Watch, Stem-winding	J. Laurent	119, 853
Watch, Stem-winding	H. R. Smith and R. Folsom	119, 889
Watch, Stem winding and setting	H. R. Smith and R. Folsom	121, 260
Water and gas mains, Machine for drilling and tapping	J. and P. Riley	111, 474
Water, Apparatus for elevating	J. A. Ayres	114, 092
Water-closet	C. Frankish	111, 189
Water-closet	D. Wellington	114, 238
Water-closet, Portable	P. Bergavist	112, 010
Water-closet, Portable	W. Chapman	117, 045
Water-closets, Deodorizing-apparatus for	A. Jordan	120, 979
Water color painting, Preparing pigments for	E. R. Campbell	119, 966
Water-cooler, filter, and ice-chest, Combined	R. Long	120, 294
Water, Device for supplying locomotive-tender with	W. E. Prall	116, 752
Water from wells, Apparatus for drawing	M. A. Mihills	113, 440
Water, gas, &c., Pipe for	A. K. Johnston	113, 691
Water gauge and cock, Combined	T. and W. Todd	121, 914
Water-gauge with feeder-attachments	M. N. Lynn	116, 611
Water-governor for steam-engines	G. Aab	119, 490
Water-pipes, Eel-trap for	J. J. Dutcher	113, 278
Water-pipes, Non-freezing	V. Fogerty	113, 645
Water-ram	C. Hodgkins	119, 764
Water, salt, Evaporating	J. S. Humphreys	119, 031
Water-supply attachment to wash-basins	F. Norboe	116, 086
Water-wheel and chute	E. P. H. Capron	113, 853
Water-wheel case	W. Bailey and A. P. Crowell	118, 778
Water-wheel case	W. H. Snyder	119, 194
Water-wheel, Current	J. F. M. Doan	115, 718
Weighing-scale, Platform	S. C. Baker, J. Root, and J. Case	115, 268
Weight for scales, Adjustable	H. Andres	120, 927
Weights, Apparatus for raising and lowering	T. Moore	119, 527
Welding, Apparatus for	W. A. Lewis	119, 865
Welding steel	B. W. Nichols	117, 199
Well-bottom	H. Smith	120, 216

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Wells, Device for enlarging	T. Donnelly	111, 620
Wells, Mode of making	W. Mason	112, 613
Whalebone, Device for cutting	F. E. Hibbard	121, 520
Wharf-boat	E. W. Halliday	115, 729
Wheat-clearer	E. Chipman	116, 554
Wheat, corn, and other grain for food, Preparing	R. B. Fitts	117, 165
Wheat for food, Preparation of	I. T. Curtis and J. W. Smith	116, 691
Wheat, Machine for scouring	E. Russell	111, 779
Wheat, Roasted	G. W. Waitt	114, 891
Wheat-roaster	G. W. Waitt	112, 518
Wheel and axle for railway-cars	W. Hudgin	111, 543
Wheel and gate, Water	P. H. Wait	118, 307
Wheel, Balance	F. W. Wild	114, 240
Wheelbarrow	H. Lawrence	117, 085
Wheelbarrow	H. Lawrence	117, 086
Wheelbarrow	W. McKibbin	120, 159
Wheelbarrow	J. Gehr	120, 736
Wheelbarrow and hand-plow, Combined	B. G. Fitzhugh	119, 973
Wheelbarrow and step-ladder, Combined	H. J. Evans	119, 339
Wheelbarrow and truck, Tubular frame of	B. W. Tuthill	121, 916
Wheelbarrow-frame	B. W. Tuthill	110, 698
Wheel-borer and key-way cutter	B. F. Copp	115, 824
Wheel, Car	P. H. Watson	114, 628
Wheel, Car	L. B. Hunt	116, 961
Wheel, Car	W. A. Lewis	119, 867
Wheel, Carriage	G. G. Burnham	113, 851
Wheel, Carriage	J. Y. Sitton	114, 058
Wheel, Carriage	J. McCreery	115, 497
Wheel, Carriage	J. H. Loughbridge	117, 902
Wheel, Carriage	F. N. Draper and A. Danison	119, 082
Wheel, Carriage	H. E. Dodson	119, 511
Wheel, Carriage	J. S. Graves	119, 841
Wheel, Carriage	S. D. Craft	120, 720
Wheel, Carriage	I. E. Bower	120, 847
Wheel curb, Water	W. S. Davis	112, 198
Wheel, Current	C. Morehouse	114, 959
Wheel, Current	W. Tudor	115, 660
Wheel, Floating water-elevating	C. F. Fisher	112, 025
Wheel for animal-traps	W. F. Collier	115, 933
Wheel for animal-traps	B. B. and J. R. Hill	116, 592
Wheel for locks, Permutation	E. W. Brettell	115, 814
Wheel-hubs for setting boxes, Machine for boring	J. C. Hendry	117, 170
Wheel for tempering clay	F. S. Carnell	114, 919
Wheel for traction-engines	C. W. Tremain	114, 369
Wheel for traction-engines, Elastic	C. W. Hermance	118, 934
Wheel for vehicles	A. D. Brown, sr	111, 312
Wheel for vehicles	J. Harris	113, 050
Wheel for vehicles	R. W. McClelland	113, 682
Wheel for vehicles	R. W. McClelland	114, 458
Wheel for vehicles	J. C. Pierce	115, 981
Wheel for vehicles	M. R. Brown	116, 148
Wheel for vehicles	W. M. Hunt	116, 193
Wheel for vehicles	J. R. Baird	117, 142
Wheel for vehicles	W. F. Ray	119, 788
Wheel for vehicles	E. Ball, jr	119, 811
Wheel for vehicles	A. Ball	120, 022
Wheel for wheelbarrows	G. Withington	111, 708
Wheel gear, car, Self-adjusting	G. Sewell	114, 979
Wheel, Paddle	E. Pratt	113, 561
Wheel, Paddle	E. Mathers	114, 022
Wheel, Paddle	N. P. Sheldon	117, 822
Wheel, Paddle	D. S. Darling	117, 991
Wheel, Paddle	J. C. Hite	118, 532
Wheel, Paddle	W. Thomson	121, 689
Wheel, Plow	H. Galentine	120, 581
Wheel-rim	D. A. Johnson	114, 565
Wheel, Railway-car	L. B. Hunt	111, 211
Wheel, Railway-car	J. B. Handyside	120, 432
Wheel, Railway-car	G. B. Bryant	120, 489
Wheel, Railway-car	A. G. Barrett	121, 075
Wheel, Railway-car	H. C. Lockwood	120, 985
Wheels, carriage, Wheel-pit for spoking	J. Collins	117, 745
Wheels, Machine for cutting the teeth of	H. Belfield	120, 023
Wheels, Metallic hub for	J. Monk	121, 462
Wheels, Mode of expanding	D. Hitchings	115, 611
Wheel-skate	G. W. Hawk	114, 135
Wheel, Spinning	J. Strain	113, 594
Wheel-tires, Securing	A. Huegler	112, 599
Wheels to axles, Attaching	J. W. Beal	121, 270
Wheels, vehicle, Felly-clip for	D. Grim	116, 050
Wheel, Traction	O. Hyde	117, 174
Wheel, Traction	G. W. Fitts	119, 922

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Wheel, Wagon	H. D. and J. T. Keith	117, 300
Wheel, Wagon	J. Preist	118, 815
Wheel, Water	J. W. Truax	111, 019
Wheel, Water	A. L. Moore and N. S. Parker	111, 077
Wheel, Water	J. B. Reyman	111, 381
Wheel, Water	J. P. Allen	111, 601
Wheel, Water	J. Gardner	111, 630
Wheel, Water	C. J. Fox	112, 028
Wheel, Water	W. N. Whipple	112, 100
Wheel, Water	L. M. Wright	112, 202
Wheel, Water	H. Bushnell	112, 219
Wheel, Water	E. E. Coleman	112, 324
Wheel, Water	E. C. Boyles	112, 412
Wheel, Water	J. T. Case	112, 545
Wheel, Water	P. W. Yarrell	112, 667
Wheel, Water	G. Cox	113, 400
Wheel, Water	J. H. Staples	113, 592
Wheel, Water	J. S. Warren	113, 823
Wheel, Water	C. F. H. Huff	113, 888
Wheel, Water	J. L. Kurtz	114, 154
Wheel, Water	E. L. Small	114, 211
Wheel, Water	N. F. Burnham	114, 525
Wheel, Water	T. Leffel	114, 571
Wheel, Water	M. Flanigan	114, 659
Wheel, Water	A. H. Merriman	115, 082
Wheel, Water	R. R. Royer	115, 362
Wheel, Water	W. J. Thompson	115, 389
Wheel, Water	T. Whitmore	115, 551
Wheel, Water	E. D. Cole	115, 578
Wheel, Water	W. Bayley and A. B. Crowell	115, 681
Wheel, Water	L. D. R. Shaw	115, 774
Wheel, Water	G. W. Loonard	116, 071
Wheel, Water	R. Buchanan	116, 149
Wheel, Water	O. J. Hodge	116, 443
Wheel, Water	E. Pool	116, 749
Wheel, Water	D. Ehrhart	116, 937
Wheel, Water	C. M. Mooney	117, 193
Wheel, Water	J. Bell	117, 244
Wheel, Water	C. W. Parker	117, 451
Wheel, Water	D. Sandhoe	117, 469
Wheel, Water	T. C. Doran and B. F. Sortman	117, 522
Wheel, Water	D. and F. M. Woodsum	118, 324
Wheel, Water	D. Craik	118, 516
Wheel, Water	C. M. Miles	118, 546
Wheel, Water	D. A. Flummerfelt	118, 708
Wheel, Water	A. C. Lesner	118, 731
Wheel, Water	J. G. Garretson	119, 026
Wheel, Water	J. T. Case	119, 220
Wheel, Water	J. C. Kelly	119, 274
Wheel, Water	J. M. and W. L. Cress	119, 328
Wheel, Water	H. Shears	119, 477
Wheel, Water	O. Bryant	119, 567
Wheel, Water	J. F. Daniels	119, 580
Wheel, Water	S. D. Taylor	120, 345
Wheel, Water	D. W. C. Teller	121, 137
Wheel, Water	W. Read	121, 195
Wheel, Water	B. Redding	121, 472
Wheel, Water	J. S. Teed	121, 555
Wheel, Water and wind	A. Folsom	113, 284
Wheel, Wind	H. Woodruff	114, 381
Wheel, Wind	G. Mabie	121, 392
Whiffletree	J. Ward	112, 098
Whiffletree	J. H. Riggs	113, 568
Whiffletree	S. L. and J. W. Reynolds	113, 696
Whiffletree	W. S. Brown	114, 913
Whiffletree	R. W. McClelland	115, 078
Whiffletree	J. R. Arnes	116, 005
Whiffletree	J. A. Lannert	119, 371
Whiffletree	W. J. McMaster	121, 393
Whiffletree-iron	W. W. Urquhart	116, 239
Whiffletree-plates	F. B. Morse	111, 866
Whiffletree, Safety	I. and T. Byrd	118, 103
Whip-braiding machine	E. Sizer	120, 783
Whip-holder	J. Thornton and E. G. Latta	120, 551
Whip-rack	R. B. Anderson	113, 719
Whip-socket	J. Nellis	114, 845
Whip-socket	G. M. Peters	121, 959
Whip-socket	W. R. Allen	115, 536
Whip-socket	F. Selle	118, 820
Whip-socket	J. Heberling	120, 381
Whip-socket	F. Adams	121, 568
Whip-stock	J. J. Bohler	112, 891

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Whip-stock.....	H. W. Avery.....	119, 296
Whip-stock.....	W. H. Millikin.....	121, 954
Whip-broom.....	G. Stackpole.....	112, 976
Whisk-broom.....	G. Stackpole.....	113, 353
Whisk-broom.....	E. P. Cooley.....	114, 646
Whisk-broom.....	R. Y. Martin.....	114, 697
Whisky, Flavoring.....	S. Gross.....	114, 552
Whisky and other spirits, Apparatus for ageing.....	J. Peiffer and S. Richards.....	112, 485
Whistles, candy, Manufacture of.....	A. Neuhausen.....	119, 392
White-lead, Machine for washing.....	W. Davison.....	118, 794
White-lead, Manufacture of.....	L. Brumlen.....	113, 014
White-lead, Manufacture of.....	T. H. Burridge.....	114, 405
White-lead, Manufacture of.....	D. Wadsworth.....	120, 916
White-lead, Process of making.....	C. L. Wheeler.....	120, 556
Wearing-apparel, &c., Apparatus for stamping.....	C. Gernert.....	113, 999
Weather-strip.....	F. A. Coates.....	113, 500
Weather-strip.....	L. H. Ellsworth, W. E. Wilcox, and S. Seabury.....	114, 118
Weather-strip.....	A. M. Ulmer.....	115, 545
Weather-strip.....	D. Young.....	118, 418
Weather-strip.....	J. Thomson.....	121, 912
Weather-strip for doors.....	S. McFall.....	115, 625
Weather-strip for doors.....	L. M. Lawless.....	118, 730
Wedge for splitting wood.....	A. Heusser.....	110, 974
Wedges, Machine for cutting.....	N. Warner.....	121, 264
Wedges, Machine for making.....	T. B. Brown and J. N. Dinsmore.....	119, 306
Weft-stop motion.....	F. O. Tucker.....	117, 698
Weighing and distributing scales, Automatic.....	H. Fairbanks.....	110, 965
Weighing-machine, Electro-magnetic.....	H. Fairbanks.....	110, 963
Winding-machines, Thread-guide for.....	D. M. Church.....	112, 901
Windlass.....	O. P. Hix.....	117, 073
Windlass.....	W. P. Davis.....	119, 126
Windlass.....	E. Bnell.....	122, 151
Windlass, Ship's.....	C. C. Jordeson.....	112, 148
Windmill.....	E. Savoral.....	110, 683
Windmill.....	B. W. Stanton.....	113, 218
Windmill.....	P. Bailey.....	113, 243
Windmill.....	G. Mabie and T. C. Little.....	114, 309
Windmill.....	L. E. Hazen.....	114, 677
Windmill.....	S. M. Abbott.....	114, 899
Windmill.....	E. Cleaver.....	116, 555
Windmill.....	T. C. Little.....	117, 181
Windmill.....	L. Leach.....	117, 434
Windmill.....	T. S. Van Devort.....	117, 488
Windmill.....	J. Hall.....	113, 124
Windmill.....	I. Lehmer.....	119, 159
Windmill.....	M. Crossman and P. A. Spier.....	119, 971
Windmill.....	M. Crossman and P. A. Spier.....	119, 972
Windmill.....	A. D. Ruddock.....	120, 778
Windmill.....	H. H. Frank and P. Hansen.....	121, 095
Windmill.....	L. Patric.....	121, 125
Windmill.....	J. Cushman.....	121, 853
Window-blind.....	W. E. Brock.....	116, 679
Window-blind.....	S. M. Sherman.....	117, 001
Window-blind.....	I. H. Hobbs.....	118, 454
Window-blind operator.....	G. Jennisen and M. F. Otis.....	113, 301
Window-blinds, Fastening for.....	I. Amos.....	121, 309
Window-blind, Ventilating roller.....	A. Cooper.....	114, 412
Window-button.....	A. D. Judd.....	112, 717
Window, Carriage.....	C. M. Oblenis.....	114, 592
Window-casing and sash.....	M. M. Ellis.....	122, 239
Window-cleaner.....	G. Smeaton.....	119, 055
Window-cords, Locking-device for.....	C. Rand.....	112, 278
Window for railway-cars.....	E. A. Schoeller.....	112, 639
Window-frame.....	S. R. Owen.....	111, 080
Window-protector.....	W. K. Winant.....	111, 162
Window-sash.....	A. G. Bazby.....	114, 915
Window-sash.....	J. Groves.....	120, 267
Window-sash, Device for suspending.....	T. Morton.....	118, 042
Window-sash, Reversible.....	W. P. Nelson.....	115, 766
Window-screen.....	C. F. Linscott.....	113, 537
Window-screen.....	O. F. Frost.....	118, 922
Window-shade.....	A. W. Porter.....	110, 787
Window-shade.....	J. J. Phares.....	118, 814
Window-shade and clothes-drier.....	B. G. Fitzhugh.....	119, 975
Window-shade fixture.....	N. Thompson.....	113, 364
Window-shade fixture.....	A. F. Dickinson.....	115, 178
Window-shade fixture.....	L. C. Hoffmeister, jr.....	120, 971
Window-washer.....	C. A. Bell.....	112, 009
Wine-basket.....	J. Roussillon.....	112, 852
Wines, Apparatus for clarifying.....	A. Gottschalk.....	119, 460
Wine-sirup and beverage.....	A. D. Puffer.....	111, 568

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Wines, sparkling, Process and apparatus for manufacture of.	W. Gilham	115, 950
Wire, Apparatus for manufacturing	B. A. Mason	112, 944
Wire bail, Machine for forming	J. P. Van Bramer	119, 204
Wire blank for napkin-rings, cruet-holders, &c.	C. W. Goodhue	117, 272
Wire bottle-stopper fastening, Machine for forming	H. W. Putnam	115, 354
Wire brush, Helical	F. F. Field	119, 752
Wire cables, Machine for wrapping	J. Gray	122, 246
Wire-cloth, Shuttle for weaving	C. H. Waters and W. Orr, jr.	117, 837
Wire cylinders, Machine for making	C. H. Latham	113, 779
Wire fastenings for bottle-stoppers, Machine for bending.	H. W. Putnam	115, 102
Wire, Device for pointing	R. Kent	121, 632
Wire fencing, Machine for making	B. Greening	117, 275
Wire, Machine for coiling	E. B. Allen, and C. O. and A. P. Small	112, 526
Wire-nettings, Machine for making	F. C. C. Weber	121, 831
Wire rope-way, Endless	A. S. Hallidie	110, 971
Wire rope-way, Endless	A. S. Hallidie	115, 309
Wire rope-way, Endless	A. S. Hallidie	115, 310
Wires, Apparatus for crimping	C. P. Seitzinger	118, 283
Wire-stretcher	A. Byington	111, 905
Wire-stretcher	E. B. Stephens	118, 293
Wire to machines, Machinery for feeding	E. G. Parkhurst	118, 481
Wisp and flasks, Combined	L. T. Pyott	121, 194
Wood, Apparatus for injecting preservative liquids into.	W. H. Smith	111, 784
Wood, Apparatus for preserving by the Robbins process.	J. W. Fielder	115, 946
Wood-bending machine	E. A. Comer	112, 553
Wood-bending machine	E. G. Matthews	114, 171
Wood-bending machine	L. E. Minott	117, 663
Wood-bending machine	H. McDonald	120, 305
Wood-bending machine	H. McDonald	120, 306
Wood-carving machine	J. Westworth	115, 669
Wood, Composition for staining	J. Winger	112, 879
Wood, Composition for preserving	W. Hayman	110, 652
Wood, Compound for staining	J. M. Keller	115, 484
Wood, Device for bending	E. Lacey	111, 218
Wooden boxes, Construction of	W. F. Veber	112, 301
Wooden pencils, Machine for cutting the ends of	T. H. Miller	110, 777
Wooden pipes from veneers, Manufacture of	Adolph Müller	120, 210
Wood, kindling, Machine for splitting	W. L. Williams	117, 952
Wood, Machine for bending	O. Marland	111, 855
Wood, Machine for bending	A. F. Marshall	118, 736
Wood, Machine for bending	E. Lacey	118, 864
Wood, Machine for bending	H. Ocorr	119, 393
Wood, Machine for bending	G. Gustafson	119, 702
Wood, Machine for bending	J. Phillips	120, 321
Wood, Machine for bundling	W. L. Williams	111, 796
Wood, Machine for carving and molding	M. T. Boulton	116, 543
Wood, Machine for disintegrating	C. Wolff, sr., and C. Wolff, jr.	111, 415
Wood, Machine for splitting	F. Ficht	111, 333
Wood, Machine for splitting	D. Milliken	118, 963
Wood, Machine for turning	G. Pickering	120, 532
Wood, Method of bending for round boxes	S. Paterson	119, 240
Wood-planing machine	N. C. Freck	120, 426
Wood, Portable apparatus for preserving	W. T. Pelton	113, 338
Wood, Preserving	T. W. Chandler	110, 738
Wood, Preserving	B. H. Detwiler and S. G. Van Gilder	111, 045
Wood, Preserving	N. H. Thomas	113, 706
Wood, Preserving	A. H. Tait	115, 784
Wood, Preserving	S. P. Brown	115, 931
Wood, Preserving	J. Jones	118, 245
Wood, Preserving	J. G. Voorhees	121, 141
Wood, Preserving and seasoning	S. Constant and J. Smith	116, 274
Wood, Preserving blocks of	E. M. Fowler	112, 136
Wood, Preserving, coloring, and seasoning	F. Lear	116, 969
Wood-preserving composition	R. Sutphen	120, 009
Wood, Process of seasoning	E. Davee	115, 446
Wood-pulp machine	S. A. Perkins	112, 734
Wood-pulp machine	W. H. Howland	113, 297
Wood-pulp machine	J. Taylor	117, 122
Wood-pulp, Machine for grinding	S. A. Perkins	112, 733
Wood-pulp, Machine for preparing	M. and A. Waissnix and C. A. Specker	111, 496
Wood-screw	A. B. Lipsey	112, 935
Wood-screws	J. A. Bidwell	113, 006
Wood-splitting machine	W. L. Williams	117, 951
Wool, Bleaching	J. Watteau	121, 564
Wool, Compound for lubricating	J. J. Lundy	112, 723
Wool-drier	J. M. Dick	116, 032
Wool from rags, Separating	J. F. Collins	119, 077

Alphabetical list of inventions—Continued.

Invention or discovery.	Name of patentee.	No.
Wool from skins, Machine for pulling.....	J. Watteau	121, 565
Wool, Machine for burring.....	W. Richardson.....	111, 004
Wool, &c., Machine for burring and cleaning.....	C. G. Sargent.....	118, 153
Wool, &c., Machine for oiling.....	C. G. Sargent.....	114, 048
Wool, Machine for spinning.....	L. W. Felt	120, 255
Work-bench, Carpenters'.....	R. C. Love	111, 553
Work-stand, Ladies'.....	C. S. Caple	117, 044
Worsted cord, Machine for dressing.....	I. E. Palmer	113, 917
Wrecking-frog for railways.....	S. M. Hudson	121, 875
Wrench.....	J. F. Robertson	110, 789
Wrench.....	J. Goodin	110, 914
Wrench.....	R. White	112, 101
Wrench.....	E. Beach	112, 103
Wrench.....	E. Beach	112, 109
Wrench.....	T. B. Morse	114, 179
Wrench.....	A. G. Coes	114, 505
Wrench.....	J. N. Newell	114, 703
Wrench.....	G. B. Phillips	117, 679
Wrench.....	A. P. Lord	118, 141
Wrench.....	H. N. Smade	118, 559
Wrench.....	J. W. Mahlon	118, 619
Wrench.....	W. S. and J. A. Wilcox	118, 891
Wrench.....	A. Cumberworth.....	119, 265
Wrench.....	J. Gates	119, 596
Wrench.....	T. D. McBride	120, 304
Wrench.....	A. Whitcomb	120, 687
Wrench.....	A. B. Davis	120, 947
Wrench.....	N. Warren and J. C. Stock	121, 027
Wrench.....	L. Chapman	121, 083
Wrench.....	G. C. Taft	121, 685
Wrench.....	A. G. Coes	122, 108
Wrench.....	G. C. Taft	122, 139
Wrench and oiler.....	E. B. Gifford	112, 238
Wrench and pipe-tongs.....	J. A. Morrison	116, 077
Wrench, Pipe.....	O. G. Barrett	111, 422
Wrench, Pipe.....	E. H. Robbins.....	114, 348
Wrench, Pipe.....	W. H. Barwick.....	115, 678
Wrench, Pipe.....	H. Wilson	118, 997
Wrench, Pipe.....	I. S. Hamilton.....	120, 641
Wrench, Pipe.....	H. A. Hyle	121, 372
Wrench, Tap.....	G. W. Huntoon and E. Simonds.....	111, 647
Wringer, Clothes.....	A. Albrecht	112, 669
Wringer, Clothes.....	A. King	112, 815
Wringer, Clothes.....	A. M. Bailey	112, 884
Wringer, Clothes.....	W. H. Towers	114, 231
Wringer, Clothes.....	E. G. W. Bartlett.....	115, 150
Wringer, Clothes.....	C. E. Carter	115, 161
Wringer, Clothes.....	H. E. Smith	115, 372
Wringer, Clothes.....	E. G. W. Bartlett.....	116, 665
Wringer, Clothes.....	C. H. Hudson	117, 291
Wringer, Clothes.....	E. P. H. Capron	118, 431
Wringer, Clothes.....	C. V. Mead	119, 334
Wringer, Clothes.....	L. Hale	120, 512
Wringer, Clothes.....	J. W. Hampton	120, 968
Wringer, Clothes.....	S. W. and J. F. Palmer	121, 657
Wringer, Clothes.....	J. Fox	122, 164
Wringer, Clothes.....	J. Brinkerhoff.....	122, 220
Wringer, Peat.....	A. N. N. Aubin	117, 591
Wringer-roller.....	J. Whitehead	118, 313
Wringer-rolls, Machine for covering.....	J. Moulton	119, 636
Wringer, Roller for.....	J. Makehney.....	115, 491
Wringing-machine.....	A. H. Spencer	111, 484
Wringing-machine.....	W. Denton	118, 519
Wringing-machine.....	J. M. Clark	121, 589
Writing-apparatus for the blind.....	A. Von Briesen	121, 026
Wrought nails, Machine for making.....	D. Armstrong.....	115, 267
Y.		
Yarn-beam for looms.....	A. W. Cole	118, 910
Yarn, Machine for warping.....	G. Draper	111, 523
Yarn, Machine for warping.....	D. Hussey	112, 253
Yarn or thread, Machine for dressing.....	G. Jaquith	112, 600
Yarns, Machine for twisting.....	J. H. Jackson and S. Leak.....	118, 536
Yeast, Manufacture of.....	H. Sommer and A. Weiss.....	118, 495
Yeast, Manufacture of, and the application of the same in mashing and brewing.....	D. Green.....	114, 671
Z.		
Zinc-board for stoves.....	W. Westlake	112, 996

Alphabetical list of trade-marks.

Invention or discovery.	Name of patentee.	No.
Zinc, Coating sheet-iron with	J. D. Grey	112, 588
Zinc for galvanic batteries.....	E. A. Hill	114, 005
Zinc, Method of utilizing the waste chloride of, in treating paper.	D. W. Hanna	120, 380

TRADE-MARKS.

A.		
Advertising medium	K. Palmer	500
Agricultural implement	Hall & Speer	123
Akron cement	The Union Akron Cement Company, Buffalo.	141
Alcohol	C. H. Graves	575
Alpaca	W. I. Peake	259
Atomizer, for perfuming, &c	T. J. Holmes	480
Averill chemical paint	Averill Chemical Paint Company, New York.	143
Ax	Douglas Ax-Manufacturing Company.	302
Ax	Douglas Ax-Manufacturing Company.	303
Ax	Douglas Ax-Manufacturing Company.	304
Axes	C. Gerber & Co.	593
B.		
Baking-powder	W. N. Hedges	309
Balm	D. Barnes	232
Beer	B. Bates	176
Beer	B. Bates	268
Beer	F. E. Lester	483
Bells	E. A. & G. R. Meneely	335
Beverage	E. J. Williamson	401
Billiard-cushion	H. W. Collender	236
Billiard-table	Phelan & Collender	242
Billiard-tables	Kavanagh & Decker	536
Bitters	A. Orth	211
Bitters	Dr. S. B. Hartman & Co.	218
Bitters	W. H. Knoepfel	580
Blacking and leather-dressing	B. F. Brown & Co.	403
Blacking and leather-dressing	B. F. Brown & Co.	404
Blacking and leather-dressing	B. F. Brown & Co.	405
Blackings	C. H. Young & Co.	526
Boot and shoe lasts	J. McComber	250
Boot-heel	F. Hacker and F. Richardson	188
Boots and shoes	E. Townsend	140
Boots and shoes	H. E. Townsend	264
Boots and shoes	H. E. Townsend	265
Boots and shoes	J. H. Walker	288
Boots and shoes	Francis & Mallon	565
Boots and shoes	The Ventilating Water-Proof Shoe Company.	583
Boots and shoes	The Ventilating Water-Proof Shoe Company.	584
Boots and shoes	J. W. Adams	600
Brandy	Ives, Beecher & Co.	429
Brandy	Ives, Beecher & Co.	547
Brandy	Ives, Beecher & Co.	548
Brandy	Ives, Beecher & Co.	549
Bread	J. F. Kohler	537
Bronchial troches	J. I. Brown & Sons	475
Burning-fluid	R. G. Richards	204
Burning-fluid	B. A. Rose	282
C.		
Cabinet-organs	Redington & Co.	336
Candle	C. Harkness	390
Candy	F. M. Whitelaw	320
Car and other bearings, Composition	Jackson & Wiley	378
Carpet-lining	G. W. Chipman	294
Carpets	Lowell Manufacturing Company, Lowell, Mass.	132
Carriage-makers' hardware	H. D. Smith & Co.	521
Cassimeres	Gallaghan & Brother	222
Castor-oil	H. J. Baker	373
Castor-oil	H. J. Baker	374
Cast steel	Singer, Nimick & Co.	487
Cast steel and castings	W. Butcher & Co.	573

Alphabetical list of trade-marks—Continued.

Invention or discovery.	Name of patentee.	No.
Cement	Wendt & Rammelsberg.....	585
Chair, Split-bottom.....	J. G. Strain.....	504
Chemical, pharmaceutical, and galenical preparations.....	E. F. Suire & Co.....	383
Chemicals for dying	Weeks & Dupee.....	525
Cheviot shirtings	Fish, Clark & Flag.....	249
Chewing-tobacco.....	C. R. Messinger.....	570
Chicory.....	Blume & Co.....	177
Cholera-medicine	Atchison & Bro.....	447
Churn	P. Blanchard's Sons.....	254
Cigar	Straiton, Schmitt & Storm.....	126
Cigar	Smith, Crosby & Co.....	244
Cigar	Schmidlapp Bro.....	316
Cigars	J. C. Smith & Son.....	230
Cigars	P. Pohalski & Co.....	581
Clocks	E. Ingraham.....	576
Clocks	E. Ingraham.....	577
Clocks	E. Ingraham.....	578
Clocks	E. Ingraham.....	579
Clock-spring.....	W. Barnes.....	474
Clothes-wringer.....	A. H. Spencer.....	326
Clothiers and tailors' trimmings.....	Harris, Richmond & Shafer.....	329
Clothiers and tailors' trimmings.....	Harris, Richmond & Shafer.....	330
Clothiers and tailors' trimmings.....	Harris, Richmond & Shafer.....	331
Clothing.....	O. S. Baldwin.....	351
Coating, Composition	D. R. Crocket.....	160
Coffee	J. Ashcroft.....	553
Coffees, spices, mustard, and cream-tartar.....	Butler, Earhart & Co.....	455
Collars	B. Weber.....	597
Compound, Medical	Pemberton, Taylor & Co.....	166
Condition-powder	C. Garlick.....	459
Cooking and other stoves.....	Bridgeford & Co.....	592
Cooking-stoves.....	G. F. Filley.....	328
Cordial-gin	J. Forster.....	444
Cords, fringes, ribbons, &c.....	Silbermann, Heinemann & Co.....	172
Corn-salve.....	J. McKee.....	451
Corset	T. Langdon & Co.....	542
Corsets	M. Cohn & Co.....	529
Corsets	T. Langdon & Co.....	541
Corsets, skirts, &c.....	T. Langdon & Co.....	539
Cosmetic.....	H. Schroeder.....	317
Cosmetics, pomades, and perfumeries.....	Holbrook & Merrill.....	135
Cotton-bale band and tie.....	J. J. McComb.....	171
Cotton-bale tie.....	J. J. McComb.....	314
Cotton goods.....	B. B. & R. Knight.....	220
Cotton goods.....	Harris Manufacturing Company.....	225
Cotton sheetings, &c.....	The Jackson Company.....	538
Cotton shirting	R. B. & R. Knight.....	418
Crackers.....	W. N. Monies & L. Pughe.....	382
Cundurango	Bliss, Keene & Co.....	514
Cundurango	Bliss, Keene & Co.....	515
Curtain-fixtures	S. S. Putnam.....	422
Cutters for harvesters, &c.....	Sweet, Barnes & Co.....	571
D.		
Dressing-compound.....	E. R. Millard.....	190
Durham tobacco	W. T. Blackwell.....	122
Dyeing and coloring compounds	W. H. Place & Co.....	252
E.		
Edge-tool	Dunn Edge-Tool Company.....	477
Engine-oil	Harmon, Merrick & Co.....	439
Essence of coffee.....	Butler, Earhart & Co.....	425
F.		
Fertilizer	G. Bourne.....	169
Fertilizer	Smith & Harris.....	245
Fertilizer	Charleston (S. C.) Mining and Manufacturing Company.....	293
Fertilizer	Walton, Whann & Co.....	319
Fertilizer	T. J. Hand.....	478
Fertilizer	J. Horner, jr.....	535
Fertilizers.....	J. Horner, jr.....	594
Fine cotton shirting	Harris Manufacturing Company.....	479
Fire-brick, tile, &c.....	McConnell, Porter & Co.....	510
Fire-extinguisher	Northwestern Fire-Extinguisher Company.....	356
Fire-place heaters.....	Richardson, Boynton & Co.....	501
Fish.....	A. T. Carew.....	476

Alphabetical list of trade-marks—Continued.

Invention or discovery.	Name of patentee.	No.
Fish-line.....	G. H. Mansfield	509
Flour	H. Cole & Co.	256
Flour.....	S. H. Anderson & Co.	290
Flour.....	W. M. Galt.....	458
Flour.....	W. H. Tenney & Sons.....	572
Porks, Agricultural.....	Batcheller Manufacturing Company, New York.....	131
Fringes, ribbons, and trimmings of silk.....	Silbermann, Heinemann & Co., New York.....	134
Fruit-jar.....	Mason Manufacturing Company.....	276
Frying-pan	S. Smith	284
G.		
Gaiters	T. R. Evans.....	426
Garter	A. H. Pike	298
Gentlemen's boots	Clement, Colburn & Co.....	516
Gentlemen's furnishing goods.....	A. W. W. Miller	258
Gentlemen's furnishing goods.....	Fisk, Clark & Flagg.....	270
Gentlemen's furnishing goods.....	Fisk, Clark & Flagg.....	271
Gentlemen's furnishing goods.....	Fisk, Clark & Flagg.....	296
Gentlemen's furnishing goods.....	Fisk, Clark & Flagg.....	297
Gin.....	I. D. Richards & Sons.....	137
Gin.....	L. Myers & Co.....	365
Gin.....	I. D. Richards & Sons.....	485
Gin.....	F. Schuchardt	502
Gin.....	F. Schuchardt	503
Gin.....	Gill & Lootz	531
Gin.....	T. L. Smith	551
Gin.....	I. D. Richards & Sons.....	560
Gin.....	A. W. Balch & Co.....	588
Gin.....	A. W. Balch & Co.....	589
Ginger-ale and winter beverage.....	A. Carson & W. Lemon.....	159
Gloves.....	Ware, Marshall & Co.....	596
Glue.....	Baeder, Adamson & Co.....	175
Glycerine soap.....	Mark & Rawolle.....	364
Governors for steam-engines.....	J. A. Lynch & E. B. Buckingham.....	334
Gray cloth.....	L. Pomeroy's Sons	196
H.		
Hair and face dressings.....	O. Clark	456
Hair, Preparation for the	D. Barnes.....	235
Hair-restorer	E. A. Warren	445
Harness	J. P. Hill & Co.....	567
Harvesters.....	Harris Manufacturing Company.....	428
Hat.....	N. A. Baldwin, J. H. Brintice, and J. R. Waller.....	182
Hat.....	Yates, Wharton & Co.....	369
Hats, caps, and straw goods.....	Dunlap & Co.....	170
Hay-elevator and other agricultural implements	A. J. Nellis.....	124
Horse-nail	Northwestern Horse-Nail Company	277
Hosiery trimmings and gentlemen's furnishing goods.....	J. P. Loring.....	363
Hydraulic cement.....	Hydraulic Cement Company	347
Hydraulic cement.....	Utica Cement Company.....	433
Hydrocarbon-oil	R. S., W. B., and J. Merrill.....	557
I.		
Ink	Carter Brothers & Co.....	388
Ink, Printers'	C. E. Johnson	228
Insect-powder	D. Barnes	234
Insect-powder	J. M. Hughes	332
J.		
Jewelry.....	W. M. Elias & Brother.....	237
Jewelry.....	J. P. Turner.....	415
Jewelry and watches.....	S. Landsberg.....	419
K.		
Kerosene and spirits of turpentine	F. Spies.....	139
Kitchen-ranges	Bartlet Robbins.....	513
Knit goods and fabrics.....	P. M. Hardee.....	497
L.		
Label and shoe-card.....	S. Crump	457
Lace goods.....	A. G. Jennings.....	163
Ladies' collars, cuffs, &c	E. Husson.....	481

Alphabetical list of trade-marks—Continued.

Invention or discovery.	Name of patentee.	No.
Ladies' under-garments, ruffles, &c.....	G. A. Whiting	359
Lathe-chucks	E. Horton & Son	518
Laundry-bluing	P. V. Viele	438
Leaf-tobacco	S. Hemsheim	272
Leather	Walker Oakley & Co	289
Leather	G. F. and C. T. Page	441
Leather	Eagle Tanning-Works, Chicago	449
Lightning-rods	S. J. Mitchell	354
Linen goods and fabrics containing linen.....	J. Bullocke	327
Linen thread	J. Knox, jr.	482
Liniment	D. Barnes	233
Liniment	J. Shember	263
Liniment	W. H. Adams and F. A. Young	446
Liquid slating, &c	J. D. Wilder	511
Locks and hardware	Hillebrand & Wolf	178
Loom-temple	Dutcher Temple Company	496
Lubricating-compound.....	G. M. Dennison	506
Lubricating-oil	Warfield & Co	145
Lubricating-oil	F. M. Backus	266
M.		
Machinery	J. Cooper	269
Matches	Bock, Genin & Co	352
Mathematical instruments.....	Heller & Brightly	440
Medford rum	D. Lawrence & Sons	165
Medical compound for cattle.....	D. P. Mathews	499
Medicinal preparation	W. S. Wells & J. J. Stell	167
Medicinal preparation	W. S. Wells & J. J. Stell	168
Medicinal preparation	G. B. Thurston	247
Medicine	G. H. York & Co	174
Medicine	Ridenour, Coblentz & Co	186
Medicine	H. H. Hay	208
Medicine	Hostetter and Smith	223
Medicine	T. S. Hodgson	238
Medicine	G. Reno	280
Medicine	T. E. Jenkins	310
Medicine	Lee & Brother	333
Medicine	H. J. Hartwell	346
Medicine	E. R. Phillips & Co	357
Medicine	D. Dick	362
Medicine	M. E. Perrin	367
Medicine	S. H. Kennedy	380
Medicine	H. M. Billings	387
Medicine	J. Q. Kellogg	396
Medicine	J. L. S. Hall	408
Medicine	P. Davis & Son	416
Medicine	J. N. Harris & Co	417
Medicine	Tilden & Co	421
Medicine	E. S. Sharp	423
Medicine	Dunn & Co	448
Medicine	J. Scott	452
Medicine	Thompson, Steele & Price Manufacturing Company, Chicago	453
Medicine	A. F. Shannon	465
Medicine	F. L. Richardson	486
Medicine	A. J. Hopkins	534
Medicine	Cloud, Aikin & Co	554
Medicine	E. Chiles	574
Medicine	Holloway & Co	598
Medicine	Holloway & Co	599
Medicines	E. S. Waine	345
Medicines	J. J. Haley	532
Medicines	W. A. Bishop	545
Men's clothing	E. T. Steel & Co	147
Mince-meat	Atmore & Son	436
Mineral water	Saratoga Seltzer Spring Company	213
Mineral water	Congress and Empire Spring Company	398
Mineral water	G. R. Bishop	485
Mohair	W. I. Peake	260
Mohair	W. I. Peake	261
Molasses-gate	G. S. Lincoln & Co	146
Mucilage	Carter Brothers & Co	546
N.		
Needle	R. J. Roberts	358
Nets and lace	A. G. Jennings	311
Nets and lace	A. G. Jennings	312
Nets and lace	A. G. Jennings	313
Nets and lace goods	A. G. Jennings	391

Alphabetical list of trade-marks—Continued.

Invention or discovery.	Name of patentee.	No.
Nets and lace goods.....	A. G. Jennings.....	392
Nets and lace goods.....	A. G. Jennings.....	393
Nets and lace goods.....	A. G. Jennings.....	394
Nets and lace goods.....	A. G. Jennings.....	395
Newspaper.....	F. C. Barksdale.....	424
Nipple-salve.....	J. Lovett.....	508
O.		
Oil-cans.....	J. P. Haines.....	566
Oil, Composition.....	Butler & Haynes.....	148
Oil, Factory.....	C. L. Morehouse.....	154
Oil for illumination, Mineral.....	Bostwick & Tilford.....	376
Oil for illumination, Mineral.....	Bostwick & Tilford.....	377
Oil, Illuminating.....	C. L. Morehouse.....	152
Oil, Lubricating.....	C. L. Morehouse.....	153
Oil, Machinery.....	C. L. Morehouse.....	151
Oils, Illuminating.....	J. D. Spang.....	138
Oils or burning-fluids, Illuminating.....	W. E. Jervey.....	164
P.		
Paint.....	Averill Chemical Paint Company, New York, N. Y., and Cleveland, Ohio.	128
Paint.....	J. Smith & Co.....	172
Paint.....	The Averill Chemical Paint Company.	224
Paint.....	O. Johnson & Co.....	379
Paint.....	Averill Chemical Paint Company.....	384
Paint.....	G. T. Young & Co.....	385
Paint.....	G. T. Young & Co.....	386
Paint.....	R. F. Seaman.....	437
Paint.....	Holden, Tascott & Co.....	469
Paint.....	Holden, Tascott & Co.....	470
Paint.....	Holden, Tascott & Co.....	471
Paint.....	T. McKeon.....	484
Paint.....	Walter & Fielding.....	493
Paint.....	Walter & Fielding.....	494
Paint, Chemical.....	Averill Chemical Paint Company, New York.	130
Paint, Liquid chemical.....	Averill Chemical Paint Company, New York.	129
Paint, Metallic.....	F. G. Bourke & Co.....	255
Palm-leaf brushes.....	J. L. Sherriff.....	344
Paper.....	Union Manufacturing Company.....	187
Paper.....	Rock River Paper Company.....	281
Perfume.....	Phalon & Son.....	325
Photo-engravings.....	Rockwood Photo-Engraving Company.....	337
Photo-engravings.....	Rockwood Photo-Engraving Company.....	338
Picture-frames, brackets, &c.....	M. J. Rice.....	413
Pigment.....	J. H. Nason.....	229
Pine-apple beer.....	Q. A. Hooper.....	533
Pipifax bitters.....	Walter & Sheffer.....	434
Pistol.....	The American Standard Tool Company.....	318
Pitchfork.....	Bouton, Whitehead & Co.....	591
Planter, Corn.....	J. Selby & Co.....	144
Playing-cards.....	V. E. Manger.....	556
Plow.....	Bucher, Gibbs & Co.....	217
Plow and other agricultural implements.....	J. C. Bidwell.....	155
Plows.....	The Collins Company.....	523
Plows and cultivators.....	Moline Plow Company.....	251
Plumbago grease.....	American Graphite Company.....	197
Polish for metal ware.....	W. and T. S. Witherspoon and T. Wern.	466
Polishing-compound.....	E. Morgan's Sons.....	323
Polishing-compound.....	E. Morgan's Sons.....	324
Preparation for the hair.....	C. E. Georger.....	162
Preparation for the hair.....	G. C. Barclay.....	267
Prepared cotton for mattresses, cushions, &c.....	Patent Elastic Felt Company, New York.	464
Preserved fish.....	The American Club Fish Company.....	285
Pump.....	C. G. Blatchley.....	198
Pump.....	H. Smith.....	432
Pump, Wood.....	Rich & Burlingham.....	243
R.		
Range for stoves.....	Abendroth Brothers.....	306
Ranges.....	The Scranton Stove and Manufacturing Company.	342
Ranges for stoves.....	Abendroth Brothers.....	307
Razor.....	R. J. Roberts.....	299
Razor.....	R. J. Roberts.....	300

Alphabetical list of trade-marks—Continued.

Invention or discovery.	Name of patentee.	No.
Razor-steel.....	R. J. Roberts.....	368
Reed-organ.....	J. Estey & Co.....	468
Rubber paint.....	Rubber Paint Company.....	582
S.		
Salve.....	R. Dobbins.....	184
Salve.....	O. Palmer.....	212
Salt.....	F. Baker.....	372
Saws.....	The Bissell and Moore Manufacturing Company.....	341
Scale, Weighing.....	E. F. Jones.....	200
Scissors.....	R. J. Roberts.....	262
Scythes.....	The Dunn Edge-Tool Company.....	562
Scythes.....	The Dunn Edge-Tool Company.....	563
Sea-moss cough-candy, troches, and sirup.....	W. J. Rand, jr.....	125
Seeds.....	Briggs & Bro.....	442
Seeds.....	Briggs & Bro.....	443
Sewing-machine.....	Wheeler & Wilson Manufacturing Company.....	181
Sewing-machine.....	J. H. Whitney.....	399
Sewing-machine.....	The Remington Empire Sewing-Ma- chine Company.....	552
Sewing-machine attachments.....	Domestic Sewing-Machine Company.....	530
Sewing-machines.....	Domestic Sewing-Machine Company.....	414
Shawl.....	F. Steffan & Co.....	397
Shawls, cloakings, beavers, &c.....	Home Woolen Company.....	568
Sheet and plate iron.....	A. Wood & Co.....	564
Sheet-iron.....	Rogers & Burchfield.....	595
Sheet-metal wares and trimmings.....	H. W. Shepard and R. Seaman.....	343
Sheet or plate iron.....	A. Wood & Co.....	505
Sherry wine.....	L. Myers & Co.....	366
Shield for neck-tie, cravats, &c.....	W. H. Hart, jr., and Brother.....	460
Shirt.....	L. Levi.....	179
Shirt.....	Morison, Son & Hutchinson.....	202
Shirt.....	Hutchinson & Thomas.....	273
Shirting.....	W. E. Joslin.....	498
Shirts.....	T. Langdon & Co.....	540
Shirts and corsets.....	T. Langdon & Co.....	543
Shirts, drawers, &c.....	L. and S. Sternberger.....	253
Shoes, brogans, and boots.....	E. F. Jones.....	149
Sirup.....	W. Moller & Sons.....	195
Sirup and molasses.....	W. Moller & Sons.....	348
Slates, &c.....	The Silicate Slate Company.....	205
Smoking-tobacco.....	J. W. Carroll.....	156
Smoking-tobacco.....	J. W. Carroll.....	157
Smoking-tobacco.....	J. W. Carroll.....	158
Smoking-tobacco.....	W. T. Blackwell.....	454
Smoking-tobacco.....	L. L. Armstead.....	512
Smoking-tobacco.....	C. R. Messinger.....	558
Smoking-tobacco.....	C. R. Messinger.....	559
Soap.....	Leberman & Co.....	185
Soap.....	Leberman & Co.....	189
Soap.....	C. E. Willetts.....	305
Soap.....	G. Baker and I. Bullock.....	473
Soap.....	W. Dreydöppel.....	555
Soaps.....	Rappleye & Knight.....	431
Spectacles.....	J. Diamond.....	507
Spices, groceries, and drugs.....	E. R. Durkee & Co.....	603
Spices, groceries, and drugs.....	E. R. Durkee & Co.....	604
Spices, groceries, and drugs.....	E. R. Durkee & Co.....	605
Spices, groceries, and drugs.....	E. R. Durkee & Co.....	606
Spool-cotton.....	L. Coleman & Co.....	183
Stationers' hardware.....	T. S. Hudson.....	219
Steam and hydraulic packing.....	W. M. Canfield.....	360
Steam-engine.....	J. Sharp.....	133
Stomach-bitters.....	J. Demarest.....	257
Stove.....	I. Droege.....	161
Stove.....	The Scranton Stove and Manufactur- ing Company.....	287
Stove.....	Comstock, Castle & Co.....	295
Stove, Cooking.....	Perry & Co.....	278
Stove-polish.....	R. E. Cherrington.....	227
Stoves.....	Redway & Burton.....	520
Strengthening-plaster.....	C. W. Massonneau.....	450
Sugar.....	W. Moller & Sons.....	349
Sugar-corn.....	J. P. Baxter.....	375
Sugar, sirup, and molasses.....	W. Moller & Sons.....	150
Surgeons' instruments.....	S. Maw, Son & Thompson.....	430

Alphabetical list of trade-marks—Continued.

Invention or discovery.	Name of patentee.	No.
T.		
Tea.....	Williams, Blanchard & Co.....	214
Tea.....	C. A. Low & Co.....	240
Tea.....	The Fusi-yama Tea-Importing Company.....	286
Tea.....	Kwong On-Cheong.....	409
Tea and coffee.....	The Great New York Tea Company.....	524
Teas.....	Allen Shapleigh & Co.....	527
Thrashing-machine.....	J. Brayley.....	216
Thrashing-machine.....	J. Brayley.....	303
Tobacco.....	E. J. Oppelt.....	203
Tobacco.....	L. L. Armistead.....	231
Tobacco.....	W. S. Kimball & Co.....	274
Tobacco.....	A. Pearl.....	350
Tobacco.....	T. C. Williams and J. Thomas, jr.....	400
Tobacco.....	Winfree & Loyd.....	402
Tobacco.....	W. A. and F. R. Brown.....	467
Tobacco.....	Goodwin & Co.....	607
Tobacco, Smoking and chewing.....	E. T. Pilkinton.....	279
Toy and fancy goods.....	Strasburgher, Fritz & Pfeiffer.....	246
Twine, warp, yarn, &c.....	E. W. Keeler.....	239
Twist tobacco.....	R. W. Cameron & Co.....	291
U.		
Umbrella.....	H. T. Robbins.....	315
Umbrellas and parasols.....	Elwell, Fisk & Worth.....	406
Umbrellas and parasols.....	Elwell, Fisk & Worth.....	407
Unions, lastings, and serge-de-Berries.....	W. and H. Foster.....	427
V.		
Vinegar and cider.....	Rowe, Graves & Co.....	283
W.		
Wagons.....	S. N. Brown & Co.....	528
Watches and jewelry.....	Aikin, Lambert & Co.....	472
Wearing-apparel for protecting lungs, &c.....	P. Lear.....	569
Whisky.....	H. Webster & Co.....	142
Whisky.....	Vidvard & Sheehan.....	180
Whisky.....	Mills, Johnson & Co.....	191
Whisky.....	Mills, Johnson & Co.....	192
Whisky.....	Mills, Johnson & Co.....	193
Whisky.....	Mills, Johnson & Co.....	194
Whisky.....	Mills, Johnson & Co.....	201
Whisky.....	J. L. Bernecker.....	207
Whisky.....	D. V. B. Henarie.....	209
Whisky.....	E. Martin & Co.....	210
Whisky.....	Mills, Johnson & Co.....	215
Whisky.....	B. R. Reynolds.....	221
Whisky.....	Vidvard & Sheehan.....	226
Whisky.....	Mills, Johnson & Co.....	241
Whisky.....	Seltzer & Miller.....	301
Whisky.....	A. H. Gillett.....	321
Whisky.....	J. Moore & Co.....	322
Whisky.....	C. H. Ross & Co.....	339
Whisky.....	C. H. Ross & Co.....	340
Whisky.....	J. A. Monks & Sons.....	355
Whisky.....	Capel & Roebuck.....	370
Whisky.....	Capel & Roebuck.....	371
Whisky.....	J. Dorn.....	389
Whisky.....	J. A. Monks & Sons.....	410
Whisky.....	J. A. Monks & Sons.....	411
Whisky.....	T. E. Moore.....	412
Whisky.....	Mills, Johnson & Co.....	461
Whisky.....	Mills, Johnson & Co.....	462
Whisky.....	Mills, Johnson & Co.....	463
Whisky.....	D. A. Stanley.....	488
Whisky.....	Walsh, Brooks & Kellogg.....	489
Whisky.....	Walsh, Brooks & Kellogg.....	490
Whisky.....	Walsh, Brooks & Kellogg.....	491
Whisky.....	Walsh, Brooks & Kellogg.....	492
Whisky.....	C. H. Ross & Co.....	550
Whisky.....	A. W. Balch & Co.....	586
Whisky.....	A. W. Balch & Co.....	587
Whisky.....	A. W. Balch & Co.....	601
Whisky.....	A. W. Balch & Co.....	602
Whisky and bitters.....	A. K. Lewis & Co.....	275
Wine.....	M. Werk & Sons.....	206
Wine.....	A. W. Balch & Co.....	590

Alphabetical list of designs.

Invention or discovery.	Name of patentee.	No.
Wines, liquors, &c.....	I. Fuller	517
Wood carpeting, wainscoting, &c.....	National Wood-Manufacturing Com- pany.....	519
Wood-working.....	McBeth, Bentel & Margedant.....	381
Woolen fabrics.....	San Francisco Pioneer Woolen Fac- tory.....	420
Woolen goods.....	W. P. Gibbs, R. G. Ross, and I. N., and W. B. Field.....	199
Working barrels or pumps for petroleum-wells	Woodbury, Booth & Co	435
Worsted goods.....	S. McLean & Co	136
Woven fabrics.....	S. J. Solms	522
Writing-pen.....	C. H. Clifton	353
Y.		
Yeast.....	The National Yeast Company, Seneca Falls, New York.....	127
Yeast.....	E. T. Smith	561

DESIGNS.

A.		
Advertising-print.....	J. Brooks	5, 068
Alto-relief.....	A. Van Wart.....	5, 057
Aprons, Printed material for.....	W. H. Walton.....	4, 801
B.		
Back of mitten.....	W. S. Tooker.....	4, 716
Badge.....	N. Joseph	5, 236
Badge.....	N. Joseph	5, 237
Badge.....	J. Bedichemer.....	5, 365
Badge-pin, Telegraphers'.....	O. C. Dow and A. C. Harvey.....	4, 748
Band-saw frame.....	W. H. Doane.....	5, 268
Banner-pin.....	W. Ricker.....	5, 086
Barn-door hanger.....	P. P. Child	5, 197
Barn-door hanger.....	J. Herald	5, 368
Base for bird-cage bracket.....	A. Wunder	5, 287
Base of carriage-bodies.....	R. M. Stivers	5, 193
Basin-front.....	F. Boyd.....	5, 042
Bed-quilt.....	F. C. Van Horn.....	4, 610
Bed-quilt.....	F. W. Eger and H. H. Kunze.....	4, 688
Bed-quilt.....	L. Krewzberger	4, 735
Bed-quilt.....	J. U. Nef	4, 955
Bedstead-fastening.....	N. C. Whitcomb	4, 913
Bell-crank and escutcheon.....	P. Cinquini	4, 695
Bellows.....	A. F. Jones.....	4, 949
Bell-tower.....	T. W. H. Moseley	5, 117
Billiard-table.....	H. W. Collender.....	4, 973
Billiard-table.....	L. Decker.....	5, 328
Bird-cage.....	O. Lindemann.....	5, 239
Bird-cage.....	G. R. Osborn and B. A. Drayton	5, 254
Bird-cage.....	G. R. Osborn and B. A. Drayton	5, 255
Bird-cage hook.....	J. B. Sargent.....	5, 262
Bitter-tube.....	J. L. Dawes	4, 789
Blacking-box.....	D. O'Leary	5, 118
Black-lead block.....	W. C. James	5, 045
Bobbin-score.....	J. Salisbury	5, 052
Bolt, Door.....	A. Wunder	5, 295
Boring-machine.....	C. E. McBeth, F. Bentel, and W. C. Margedant.....	5, 048
Bottle.....	T. B. Atterbury.....	4, 773
Bottle.....	W. A. Demuth	4, 856
Bottle.....	N. Sleeper	5, 401
Bottle, Glass.....	W. R. Warner.....	4, 745
Bottle-stand.....	C. H. Latham and G. D. Dudley	4, 619
Bottle-stand.....	G. Gill	4, 812
Bow instrument.....	L. Parmalee.....	4, 866
Box.....	A. H. Mershon	4, 796
Box, Cigar.....	A. Lis	5, 277
Box for the tops of bureaus.....	B. C. Swan	4, 606
Box for the tops of bureaus.....	B. C. Swan	4, 607
Box for the tops of bureaus.....	B. C. Swan	4, 608
Box for the tops of bureaus.....	B. C. Swan	4, 609
Box for the tops of bureaus.....	D. A. Hall and D. Garrison.....	4, 602
Box for the tops of bureaus.....	D. A. Hall and D. Garrison.....	4, 603
Box, Fruit.....	J. Sherman.....	5, 292

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
Box, Muff and collar	R. M. Seldis	4, 863
Bracelet	T. J. Smith	4, 643
Bracelet	T. J. Smith	4, 644
Bracelet	D. H. Smith	4, 911
Bracket	J. H. Bellamy	4, 853
Bracket	H. Gilson and C. F. Southwick	4, 962
Bracket	W. D. Gridley	5, 105
Bracket and chandelier	T. Village	5, 091
Bracket, Lamp	F. R. Seidensticker	4, 770
Bracket or chandelier-arm	T. Village	5, 092
Broiler	J. T. Page	4, 941
Brush	J. L. Whiting	4, 718
Bucket, Refrigerative	J. Liming	4, 940
Buckle	L. Schindler	5, 053
Buckle	A. T. Thayer	5, 403
Buckle and ring	F. A. Schultz	5, 054
Buckle-frame	J. E. Smith	4, 698
Bundle of kindling-wood	J. L. Seymour	4, 935
Burial-case	S. Stein	5, 363
Burial-casket	E. L. Cooke and J. H. Whitmore	4, 779
Burial-casket	W. F. Lane	5, 253
Burner, Lamp	H. W. Hayden	4, 829
Burner, Lamp	H. W. Hayden	4, 830
Bustle	A. W. Thomas	5, 266
Butt-hinge	F. W. Brocksieper	5, 366
C.		
Cake-dish	W. Parkin	5, 190
Cake-pan	G. W. Ketcham	5, 030
Cake-pan	A. Reid	5, 132
Cake-tazza	G. Gill	5, 442
Cake-tazza or flower-stand	W. Parkin	5, 445
Call-bell	H. C. Wilcox	5, 195
Can, Wood-incased	J. G. Evenden	5, 022
Can, Wood-incased	J. G. Evenden	5, 023
Cap for trunk-handles	T. L. Rivers	4, 933
Card suspension-clip	G. W. McGill	5, 036
Carriage-door handle	E. Wells	5, 163
Carriage-spring	G. B. Robinson	5, 051
Carpet	R. R. Campbell	5, 008
Carpet	R. R. Campbell	5, 009
Carpet	R. R. Campbell	5, 010
Carpet	R. R. Campbell	5, 011
Carpet	R. R. Campbell	5, 012
Carpet	R. R. Campbell	5, 013
Carpet	R. R. Campbell	5, 014
Carpet	R. R. Campbell	5, 015
Carpet	R. R. Campbell	5, 016
Carpet	A. Cowell	5, 018
Carpet	A. Cowell	5, 019
Carpet	A. Cowell	5, 020
Carpet	A. Cowell	5, 021
Carpet	J. Magee	5, 032
Carpet	J. Magee	5, 033
Carpet	J. Magee	5, 034
Carpet	J. Magee	5, 035
Carpet	E. J. Ney	5, 037
Carpet	T. Pennell	5, 038
Carpet	L. A. Upson	5, 040
Carpet	J. Magee	5, 047
Carpet	J. Neil	5, 188
Carpet	J. Neil	5, 189
Carpet	G. Crompton	5, 198
Carpet	G. Crompton	5, 199
Carpet	J. Crabtree	5, 215
Carpet	J. Crabtree	5, 216
Carpet	J. Crabtree	5, 217
Carpet	J. Crabtree	5, 218
Carpet	J. Crabtree	5, 219
Carpet	J. Crabtree	5, 220
Carpet	J. Crabtree	5, 221
Carpet	J. Crabtree	5, 222
Carpet	J. Crabtree	5, 223
Carpet	W. Lockhead	5, 240
Carpet	W. Lockhead	5, 241
Carpet	W. Lockhead	5, 242
Carpet	G. C. Wright	5, 245
Carpet	G. C. Wright	5, 246
Carpet	G. C. Wright	5, 247
Carpet	G. C. Wright	5, 248

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
Carpet	G. C. Wright	5, 249
Carpet	G. C. Wright	5, 250
Carpet	J. H. Bromley	5, 256
Carpet	B. Crabtree, jr.	5, 258
Carpet-pattern	R. R. Campbell	4, 547
Carpet-pattern	R. R. Campbell	4, 548
Carpet-pattern	R. R. Campbell	4, 549
Carpet-pattern	R. R. Campbell	4, 550
Carpet-pattern	J. Crabtree	4, 589
Carpet-pattern	J. Crabtree	4, 590
Carpet-pattern	J. Crabtree	4, 591
Carpet-pattern	J. Crabtree	4, 592
Carpet-pattern	J. Crabtree	4, 593
Carpet-pattern	J. Crabtree	4, 594
Carpet-pattern	J. Crabtree	4, 595
Carpet-pattern	J. Crabtree	4, 596
Carpet-pattern	J. Crabtree	4, 597
Carpet-pattern	J. Crabtree	4, 598
Carpet-pattern	J. Crabtree	4, 599
Carpet-pattern	J. Crabtree	4, 600
Carpet-pattern	J. Crabtree	4, 601
Carpet-pattern	J. H. Bromley	4, 624
Carpet-pattern	H. S. Kerr	4, 632
Carpet-pattern	H. S. Kerr	4, 633
Carpet-pattern	C. J. Koch	4, 636
Carpet-pattern	H. S. Kerr	4, 651
Carpet-pattern	H. S. Kerr	4, 652
Carpet-pattern	C. S. Lilley	4, 671
Carpet-pattern	C. S. Lilley	4, 672
Carpet-pattern	J. Crabtree	4, 679
Carpet-pattern	J. Crabtree	4, 680
Carpet-pattern	J. Crabtree	4, 681
Carpet-pattern	J. Crabtree	4, 682
Carpet-pattern	J. Crabtree	4, 683
Carpet-pattern	J. Crabtree	4, 684
Carpet-pattern	J. Crabtree	4, 685
Carpet-pattern	J. T. Webster	4, 717
Carpet-pattern	J. Crabtree	4, 721
Carpet-pattern	G. Holdsworth	4, 734
Carpet-pattern	W. Mallinson	4, 737
Carpet-pattern	A. McCallum	4, 738
Carpet-pattern	A. McCallum	4, 739
Carpet-pattern	A. McCallum	4, 740
Carpet-pattern	L. G. Malkin	4, 760
Carpet-pattern	L. G. Malkin	4, 761
Carpet-pattern	L. G. Malkin	4, 762
Carpet-pattern	L. G. Malkin	4, 763
Carpet-pattern	L. G. Malkin	4, 764
Carpet-pattern	L. G. Malkin	4, 765
Carpet-pattern	L. G. Malkin	4, 766
Carpet-pattern	L. G. Malkin	4, 767
Carpet-pattern	J. H. Smith	4, 771
Carpet-pattern	J. H. Smith	4, 772
Carpet-pattern	R. R. Campbell	4, 775
Carpet-pattern	R. R. Campbell	4, 776
Carpet-pattern	R. R. Campbell	4, 777
Carpet-pattern	R. R. Campbell	4, 778
Carpet-pattern	A. Cowell	4, 781
Carpet-pattern	A. Cowell	4, 782
Carpet-pattern	A. Cowell	4, 783
Carpet-pattern	A. Cowell	4, 784
Carpet-pattern	A. Cowell	4, 785
Carpet-pattern	A. Cowell	4, 786
Carpet-pattern	A. Cowell	4, 787
Carpet-pattern	E. J. Ney	4, 798
Carpet-pattern	R. R. Campbell	4, 867
Carpet-pattern	R. R. Campbell	4, 868
Carpet-pattern	R. R. Campbell	4, 869
Carpet-pattern	R. R. Campbell	4, 870
Carpet-pattern	R. R. Campbell	4, 871
Carpet-pattern	R. R. Campbell	4, 872
Carpet-pattern	R. R. Campbell	4, 873
Carpet-pattern	A. Heald	4, 878
Carpet-pattern	A. Heald	4, 879
Carpet-pattern	A. Heald	4, 880
Carpet-pattern	A. Heald	4, 881
Carpet-pattern	A. Heald	4, 882
Carpet-pattern	A. Heald	4, 883
Carpet-pattern	H. S. Kerr	4, 887
Carpet-pattern	C. T. Meyer	4, 889
Carpet-pattern	C. T. Meyer	4, 890

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
Carpet-pattern.....	C. T. Meyer.....	4, 891
Carpet-pattern.....	C. T. Meyer.....	4, 892
Carpet-pattern.....	C. T. Meyer.....	4, 893
Carpet-pattern.....	C. T. Meyer.....	4, 894
Carpet-pattern.....	E. J. Ney.....	4, 896
Carpet-pattern.....	E. J. Ney.....	4, 897
Carpet-pattern.....	E. J. Ney.....	4, 898
Carpet-pattern.....	A. McCallum.....	4, 905
Carpet-pattern.....	E. Perrin.....	4, 908
Carpet-pattern.....	E. Perrin.....	4, 909
Carpet-pattern.....	G. C. Wright.....	4, 914
Carpet-pattern.....	J. Crabtree.....	4, 917
Carpet-pattern.....	J. Crabtree.....	4, 918
Carpet-pattern.....	J. Fisher.....	4, 920
Carpet-pattern.....	H. S. Kerr.....	4, 925
Carpet-pattern.....	H. S. Kerr.....	4, 926
Carpet-pattern.....	E. J. Ney.....	4, 928
Carpet-pattern.....	E. J. Ney.....	4, 929
Carpet-pattern.....	R. Charlton.....	4, 943
Carpet-pattern.....	J. Fisher.....	4, 944
Carpet-pattern.....	W. Kerr.....	4, 950
Carpet-pattern.....	W. Kerr.....	4, 951
Carpet-pattern.....	W. Kerr.....	4, 952
Carpet-pattern.....	J. H. Smith.....	4, 956
Carpet-pattern.....	A. McCallum.....	4, 980
Carpet-pattern.....	J. Fisher.....	4, 987
Carpet-pattern.....	J. Fisher.....	4, 988
Carpet-pattern.....	J. Fisher.....	4, 989
Carpet-pattern.....	E. J. Ney.....	4, 994
Carpet-pattern.....	E. J. Ney.....	4, 995
Carpet-pattern.....	E. J. Ney.....	4, 996
Carpet-pattern.....	E. J. Ney.....	4, 997
Carpet-pattern.....	E. J. Ney.....	4, 998
Carpet-pattern.....	E. J. Ney.....	4, 999
Carpet-pattern.....	E. J. Ney.....	5, 000
Carpet-pattern.....	E. J. Ney.....	5, 001
Carpet-pattern.....	E. J. Ney.....	5, 002
Carpet-pattern.....	E. J. Ney.....	5, 003
Carpet-pattern.....	J. C. Johnston.....	5, 029
Carpet-pattern.....	G. C. Wright.....	5, 061
Carpet-pattern.....	G. C. Wright.....	5, 062
Carpet-pattern.....	G. C. Wright.....	5, 063
Carpet-pattern.....	G. C. Wright.....	5, 064
Carpet-pattern.....	O. Heinigke.....	5, 073
Carpet-pattern.....	L. G. Malkin.....	5, 076
Carpet-pattern.....	E. J. Ney.....	5, 078
Carpet-pattern.....	E. J. Ney.....	5, 079
Carpet-pattern.....	E. J. Ney.....	5, 080
Carpet-pattern.....	E. J. Ney.....	5, 081
Carpet-pattern.....	E. J. Ney.....	5, 082
Carpet-pattern.....	E. J. Ney.....	5, 083
Carpet-pattern.....	E. J. Ney.....	5, 084
Carpet-pattern.....	E. J. Ney.....	5, 085
Carpet-pattern.....	J. H. Smith.....	5, 088
Carpet-pattern.....	H. S. Kerr.....	5, 108
Carpet-pattern.....	J. Magee.....	5, 109
Carpet-pattern.....	T. Pennell.....	5, 119
Carpet-pattern.....	G. C. Wright.....	5, 121
Carpet-pattern.....	G. C. Wright.....	5, 122
Carpet-pattern.....	G. C. Wright.....	5, 123
Carpet-pattern.....	G. C. Wright.....	5, 124
Carpet-pattern.....	G. C. Wright.....	5, 125
Carpet-pattern.....	G. C. Wright.....	5, 126
Carpet-pattern.....	W. Kerr.....	5, 139
Carpet-pattern.....	R. R. Campbell.....	5, 164
Carpet-pattern.....	R. R. Campbell.....	5, 165
Carpet-pattern.....	R. R. Campbell.....	5, 166
Carpet-pattern.....	R. R. Campbell.....	5, 167
Carpet-pattern.....	R. R. Campbell.....	5, 168
Carpet-pattern.....	R. R. Campbell.....	5, 169
Carpet-pattern.....	R. R. Campbell.....	5, 170
Carpet-pattern.....	R. R. Campbell.....	5, 171
Carpet-pattern.....	R. R. Campbell.....	5, 172
Carpet-pattern.....	R. R. Campbell.....	5, 173
Carpet-pattern.....	R. R. Campbell.....	5, 174
Carpet-pattern.....	A. Cowell.....	5, 175
Carpet-pattern.....	W. Kerr.....	5, 184
Carpet-pattern.....	C. S. Lilley.....	5, 187
Carpet-pattern.....	H. S. Kerr.....	5, 205
Carpet-pattern.....	J. M. Christie.....	5, 272
Carpet-pattern.....	W. McCallum.....	5, 278

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
Carpet-pattern.....	W. McCallum.....	5, 279
Carpet-pattern.....	D. Paton.....	5, 280
Carpet-pattern.....	D. Paton.....	5, 281
Carpet-pattern.....	J. Magee.....	5, 300
Carpet-pattern.....	T. Barclay.....	5, 326
Carpet-pattern.....	J. Bouët.....	5, 327
Carpet-pattern.....	O. Heinigke.....	5, 331
Carpet-pattern.....	O. Heinigke.....	5, 332
Carpet-pattern.....	O. Heinigke.....	5, 333
Carpet-pattern.....	W. Mallinson.....	5, 334
Carpet-pattern.....	W. Mallinson.....	5, 335
Carpet-pattern.....	W. Mallinson.....	5, 336
Carpet-pattern.....	J. J. Patchett.....	5, 337
Carpet-pattern.....	J. J. Patchett.....	5, 338
Carpet-pattern.....	H. Robinson.....	5, 339
Carpet-pattern.....	H. Robinson.....	5, 340
Carpet-pattern.....	H. Robinson.....	5, 341
Carpet-pattern.....	A. Cowell.....	5, 351
Carpet-pattern.....	A. Cowell.....	5, 352
Carpet-pattern.....	A. Cowell.....	5, 353
Carpet-pattern.....	A. Cowell.....	5, 354
Carpet-pattern.....	A. Cowell.....	5, 355
Carpet-pattern.....	A. Cowell.....	5, 356
Carpet-pattern.....	A. Cowell.....	5, 357
Carpet-pattern.....	A. Cowell.....	5, 358
Carpet-pattern.....	A. Cowell.....	5, 359
Carpet-pattern.....	V. Guéritt.....	5, 360
Carpet-pattern.....	J. M. Silcox.....	5, 361
Carpet-pattern.....	J. M. Silcox.....	5, 362
Carpet-pattern.....	J. H. Smith.....	5, 372
Carpet-pattern.....	A. Heald.....	5, 375
Carpet-pattern.....	A. Heald.....	5, 376
Carpet-pattern.....	J. Barrett.....	5, 379
Carpet-pattern.....	A. Beck.....	5, 380
Carpet-pattern.....	R. R. Campbell.....	5, 381
Carpet-pattern.....	R. R. Campbell.....	5, 382
Carpet-pattern.....	R. R. Campbell.....	5, 383
Carpet-pattern.....	R. R. Campbell.....	5, 384
Carpet-pattern.....	R. R. Campbell.....	5, 385
Carpet-pattern.....	R. R. Campbell.....	5, 386
Carpet-pattern.....	R. R. Campbell.....	5, 387
Carpet-pattern.....	R. R. Campbell.....	5, 388
Carpet-pattern.....	R. R. Campbell.....	5, 389
Carpet-pattern.....	A. Heald.....	5, 390
Carpet-pattern.....	A. Heald.....	5, 391
Carpet-pattern.....	O. Heinigke.....	5, 392
Carpet-pattern.....	J. E. Stone.....	5, 402
Carpet-pattern.....	J. Wade.....	5, 409
Carpet-pattern.....	J. Wade.....	5, 410
Carpet-pattern.....	A. McCallum.....	5, 417
Carpet-pattern.....	A. McCallum.....	5, 418
Carpet-pattern.....	A. McCallum.....	5, 419
Carpet-pattern.....	A. McCallum.....	5, 420
Carpet-pattern.....	A. McCallum.....	5, 421
Carpet-pattern.....	A. McCallum.....	5, 422
Carpet-pattern.....	J. C. Johnson.....	5, 427
Carpet-pattern.....	R. R. Campbell.....	5, 434
Carpet-pattern.....	R. R. Campbell.....	5, 435
Carpet-pattern.....	R. R. Campbell.....	5, 436
Carpet-pattern.....	R. R. Campbell.....	5, 437
Carpet-pattern.....	R. R. Campbell.....	5, 438
Carpet-pattern.....	R. R. Campbell.....	5, 439
Carpet-pattern.....	R. R. Campbell.....	5, 440
Carpet-pattern.....	R. R. Campbell.....	5, 441
Carpet-pattern.....	D. McNair.....	5, 444
Carpet-pattern.....	E. Perrin.....	5, 446
Caster.....	J. L. Haven.....	5, 148
Caster-bottle.....	J. B. Graves.....	4, 618
Caster-bottle.....	J. Hoare.....	4, 752
Caster-ring.....	E. J. Steele.....	5, 275
Caster, Three-bottled.....	G. D. Dudley.....	5, 411
Ceilings, Center-piece in.....	E. Goutink.....	4, 963
Center-piece.....	S. Kellett.....	4, 965
Center-piece.....	S. Kellett.....	4, 966
Center-piece.....	H. Berger.....	5, 447
Center-piece, Escutcheon.....	H. Berger.....	5, 213
Center-piece for ceilings.....	C. Autenreith.....	5, 097
Center-piece, Oblong.....	H. Berger.....	5, 211
Center-piece, Star.....	H. Berger.....	5, 212
Center-piece, Stucco.....	J. John.....	4, 669

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
Chain-hook	G. D. Stevens	4, 562
Chain-link	V. Draper	4, 723
Chain-link	V. Draper	4, 749
Chain-link	V. Draper	4, 857
Chain-link, Ornamental	V. Draper	4, 722
Chain-pump	H. L. Fry	4, 922
Chain-pump	H. L. Fry	4, 945
Chair	A. Kimbel	4, 634
Chair	A. Kimbel	4, 635
Chair	H. Ocorr	4, 741
Chair	H. Ocorr	4, 742
Chair	J. G. Strain	5, 325
Chair or safe, Back of a	G. Uvezagt	4, 699
Chandelier	P. Cinquini	4, 984
Chandelier	F. R. Seidensticker	5, 005
Chandelier	F. R. Seidensticker	5, 343
Chandelier	F. R. Seidensticker	5, 344
Chest-handle	W. E. Sparks	5, 346
Chimney, Lamp	M. Sweeney	4, 983
Cigar-box	C. Schmidlapp	5, 230
Claw-bar	D. Christie	4, 811
Claw-bar	J. McMahon	4, 967
Clock-case	N. Mühler	4, 797
Clock-case	W. L. Tyler	4, 912
Clock-case	E. Ingraham	4, 979
Clock-case	P. Converse	4, 986
Clock-case sash	E. Ingraham	4, 948
Clock-dial, Calendar	D. J. Gale	4, 649
Clock-front	J. Moore, jr	4, 846
Clock-front	J. H. Bellamy	4, 939
Clock-front	J. A. Batchelor	4, 942
Clock-front	W. H. Griffiths	5, 129
Clothes-line reel-iron	D. Densmore	4, 668
Cloth, Woven	R. C. and J. W. Taft, and W. B. Weeden	4, 864
Coal-hod	C. Linder	4, 564
Coffin	W. G. Algeo	5, 007
Coffin-end	W. G. Algeo	5, 209
Coffin-top	W. G. Algeo	5, 314
Collar-box cover	P. B. Pickens	4, 558
Cooking-stove or range	N. S. Vedder and T. S. Heister	4, 900
Corner-piece for rooms	C. A. Durgin	5, 200
Corset	D. H. Fanning	4, 617
Cottage front	C. Graham	4, 843
Coupling, Thill	H. Newby	4, 901
Coupling, Thill	H. Newby	5, 302
Coupling, Thill	D. E. Wolff	5, 306
Cupboard-latch	J. Ottner	4, 930
Cupboard-latch	W. E. Sparks	5, 345
Cushion for backs of chairs	J. Kuhlmann	5, 238
Cylinder and frame, Steam-engine	J. R. Maxwell and E. Cope	5, 324

D.

Dentists' upper-impression tray	E. T. Starr	5, 194
Desk, Advertising	L. W. Burton	5, 214
Desk and seat, School	C. F. Palmer	4, 847
Desks and seats, school, End of	G. H. Grant	4, 845
Desk, School	T. A. Galt and G. S. Tracy	5, 259
Dessert-set	C. Casper	4, 613
Dessert-set	C. Casper	4, 614
Display-card	S. Houghton	5, 027
Door-handle	G. M. P. and C. H. Bradford	5, 405
Dovetail	J. D. Kellogg	4, 631
Drawer	H. P. Wetmore	4, 938
Drawer-pull	J. E. Merriman	4, 638
Drawer-pull	P. Cinquini	4, 677
Drawer-pull	P. J. Clark	4, 678
Drawer-pull	E. J. Steele	4, 822
Drawer-pull	J. Kintz	5, 185
Drawer-pull	J. B. Sargent	5, 192
Dress-trimming	J. and J. Cash	4, 567
Dress-trimming	J. and J. Cash	4, 568
Dress-trimming	J. and J. Cash	4, 569
Dress-trimming	J. and J. Cash	4, 570
Dress-trimming	J. and J. Cash	4, 571
Dress-trimming	J. and J. Cash	4, 572
Dress-trimming	J. and J. Cash	4, 573
Dress-trimming	J. and J. Cash	4, 574
Dress-trimming	J. and J. Cash	4, 575
Dress-trimming	J. and J. Cash	4, 576
Dress-trimming	J. and J. Cash	4, 577

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
Dress-trimming.....	J. and J. Cash	4, 578
Dress-trimming.....	J. and J. Cash	4, 579
Dress-trimming.....	J. and J. Cash	4, 580
Dress-trimming.....	J. and J. Cash	4, 581
Dress-trimming.....	J. and J. Cash	4, 582
Dress-trimming.....	J. and J. Cash	4, 583
Dress-trimming.....	J. and J. Cash	4, 584
Dress-waists.....	E. P. Smith	4, 532
Drinking-glasses, Ornamentation of the bottom of.....	G. B. Fowle	4, 921
E.		
Eccentric-yoke.....	D. Appel.....	5, 096
Egg-steamer.....	W. Kirkham.....	4, 554
Engine-governor case.....	J. A. Lynch.....	4, 653
Engine, Steam.....	P. L. Weimer.....	4, 534
Envelope-blank.....	G. Cade.....	4, 539
Eseritoire.....	J. F. Birchard.....	5, 315
F.		
Fabric, Cellular.....	T. Dolan.....	4, 957
Fabric, Net.....	J. Stack.....	5, 270
Fabric, nubia, Knitted.....	J. Taylor.....	5, 253
Fabric, Printed.....	T. Hardcastle.....	4, 492
Fabric, Shawl.....	J. Hodgson.....	5, 106
Fabric, Shawl.....	J. Hodgson.....	5, 107
Fabric, Shawl.....	J. Hodgson.....	5, 323
Fabric, Shawl.....	S. Byrom.....	5, 367
Fabric, Stocking.....	T. Dolan.....	4, 647
Fabric, Stocking.....	T. Dolan.....	4, 648
Fabric, Stocking.....	T. Dolan.....	4, 656
Fabric, Stocking.....	T. Dolan.....	4, 826
Fabric, Stocking.....	T. Dolan.....	4, 827
Fabric, Stocking.....	T. Dolan.....	4, 975
Fabric, Stocking.....	T. Dolan.....	4, 976
Fabric, Stocking.....	C. Button.....	5, 099
Fabric, Stocking.....	C. Button.....	5, 100
Fabric, Stocking.....	C. Button.....	5, 101
Fabric, Stocking.....	H. Pye.....	5, 228
Fastener for meeting-rails of sashes.....	P. Bradford.....	5, 238
Fastening for bedsteads.....	W. H. McPherson.....	4, 708
Faucet-holder.....	C. Ielenius.....	4, 852
Feet for glass-ware.....	J. Oesterling.....	5, 269
Fence-cap.....	G. W. Young.....	4, 612
Fence, Wire.....	M. Dupuy.....	5, 297
Filling-in tile.....	B. Kreischer.....	5, 186
Fire-dog.....	A. Wunder.....	5, 350
Fire-iron stand.....	A. Wunder.....	5, 255
Fire-iron stand.....	A. Wunder.....	5, 256
Flange and crank.....	W. W. Eastman.....	4, 791
Floor-cloth pattern.....	V. E. Meyer.....	4, 968
Floor oil-cloth pattern.....	C. T. Meyer.....	4, 654
Floor oil-cloth pattern.....	C. T. Meyer.....	4, 655
Floor oil-cloth pattern.....	C. T. Meyer.....	4, 656
Floor oil-cloth pattern.....	C. T. Meyer.....	4, 657
Floor oil-cloth pattern.....	C. T. Meyer.....	4, 658
Floor oil-cloth pattern.....	C. T. Meyer.....	4, 659
Floor oil-cloth pattern.....	C. T. Meyer.....	4, 660
Floor oil-cloth pattern.....	C. T. Meyer.....	4, 661
Floor oil-cloth pattern.....	C. T. Meyer.....	5, 309
Floor oil-cloth pattern.....	C. T. Meyer.....	5, 310
Floor oil-cloth pattern.....	C. T. Meyer.....	5, 311
Flour-safe.....	G. Davis.....	5, 224
Flower-stand.....	H. H. Hendrick.....	4, 650
Fork or spoon handle.....	J. M. Culver.....	4, 758
Fork or spoon handle.....	W. T. Kennedy.....	4, 992
Fountain.....	J. W. Fiske.....	5, 024
Fountain.....	J. W. Fiske.....	5, 025
Fountain, Ornament for.....	J. Moore and W. Wilkinson.....	4, 906
Fountain, Ornament for.....	J. Moore and W. Wilkinson.....	4, 907
Fountain-vase.....	J. Moore and W. Wilkinson.....	4, 809
Frame for church, hall, and lawn seats.....	H. M. Sherwood.....	5, 282
Frame of a show-case.....	B. Hill.....	4, 703
Frame of school-desks.....	A. E. Roberts.....	4, 605
Fringe.....	H. A. Truitt.....	4, 662
Fringe.....	W. B. Cunningham and P. Hill.....	5, 424
Fringe.....	W. B. Cunningham and P. Hill.....	5, 425
Fringe.....	W. B. Cunningham and P. Hill.....	5, 426
Tringe, Tasseled.....	H. A. Truitt.....	4, 663
Front of a catch-all.....	J. H. Bellamy.....	4, 554

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
Front of a country-house	C. Graham	4, 844
Fruit-basket	S. D. Payne	4, 899
Fruit-can	J. F. Merrill	4, 954
Furnace, Hot-air	J. A. Lawson	5, 074
Furnace, Hot-air	J. A. Lawson	5, 075
G.		
Game-board, Combination	W. Hearn	5, 072
Garment-measure	E. F. Harmon	5, 138
Garment-supporting hook	C. A. Griswold	5, 225
Garter and armlet card	S. Houghton	5, 044
Gas fire-logs	T. N. Dixon and C. Fricse	4, 974
Gas-fitting	F. E. Thomas	4, 851
Geometrical forms, Arrangement of	C. Baillairge	5, 408
Glass-wave, Feet for	J. Oesterling	5, 269
Glass-ware, Ornamentation of	J. E. Miller	5, 261
Glass-ware, Ornamentation of	F. Ladner	4, 707
Glass-ware, Ornamentation of	M. B. Campbell	4, 774
Glass-ware, Ornamentation of	J. Oesterling	5, 318
Glove	W. B. Green	4, 923
Gloves, Palm and back pieces of	F. E. Hotchkiss	4, 859
Gloves, Re-enforcing thumb-piece for	I. B. Whipple	4, 865
Gored shirts, Printed material for	W. H. Walton	4, 802
Grate-feuder	G. Buchanan	5, 321
Grate-front	C. Zenner	5, 265
Grate-hearth	J. G. IIs	5, 028
Grate, Revolving	J. D. Vance	4, 800
Grate, Spider	N. H. Talbot	5, 144
Grocers' can	J. J. Bockee	5, 276
Group of statuary	J. Rogers	4, 714
Group of statuary	A. Van Wart	5, 089
Group of statuary	A. Van Wart	5, 090
Group of statuary	J. Rogers	5, 142
Group of statuary	J. Rogers	5, 143
Group of statues	H. C. Brix	5, 127
H.		
Hair-pin	W. F. Fluhrer	4, 551
Hame-loop	J. Letchworth	5, 260
Hame-top	M. F. Boland	4, 701
Handle and bolster for table-cutlery	F. R. Chapman	5, 102
Handle for spoons or forks	G. Wilkinson	4, 731
Handle for stop-cocks	W. S. Cooper	4, 780
Hand-stamp	F. Waters	4, 803
Hand-stamp	R. B. Carsley	5, 133
Hand-stamp	S. P. Cooper	5, 135
Hand-stamp	W. B. Gorham	5, 137
Hand-stamp	W. N. Weedon	5, 364
Hand-stamp	B. B. Hill	5, 449
Hand-stamp frame	J. P. Barnes	4, 665
Hanging-vase	M. L. Snow	5, 120
Hanging-vase	J. Runey	5, 406
Harness-bracket	J. L. Jackson	5, 414
Harness saddle-bracket	J. L. Jackson	5, 397
Harness, Saddle-hook for	O. Wiener	5, 208
Harness-trimming	C. M. Theberath	5, 006
Hat-rack and mirror	W. Vanscoye	5, 233
Hay-rack	J. A. Herron	4, 884
Heater for milk	G. S. Albee	4, 623
Hinge	T. Drake	4, 790
Hinge	C. Snedekum	5, 304
Hinge, Gate	C. B. Clark	4, 855
Hoe	C. Fisher	5, 201
Hollow tile	B. Kreischer	5, 140
Hood	C. and M. Rich and H. Crow	5, 303
Hook for harness	J. L. Jackson	5, 399
Hook to hang harness on	J. L. Jackson	5, 415
Hook to hang harness on	J. L. Jackson	5, 416
Housing-plate	J. L. Haven	4, 924
Hubs, Spoke-socket rim for	S. Hindman and W. N. Matthews	5, 235
I.		
Ice-pitcher body	G. Wilkinson	5, 284
Indicator, Railroad-station	F. F. Bibber	4, 666
Infants' shoe	W. M. Carpenter	4, 646
Inkstand	T. S. Hudson	4, 705
Inkstand	L. L. Woodruff	4, 720
Inkstand	F. D. Alling	4, 836
Iron frame for upright pianos	J. Whitney	5, 293

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
J.		
Jar or caster, Pickle	J. Hill	5, 273
Jelly-glass	W. M. Kirchner	4, 754
Jelly-glass	W. M. Kirchner	4, 755
Jelly-glass	W. M. Kirchner	4, 756
Jelly-glass	W. M. Kirchner	4, 757
Jelly-glass	W. M. Kirchner	4, 758
Jelly-glass	W. M. Kirchner	4, 759
Jelly-glass	J. S. and T. B. Atterbury	4, 915
Jelly-glass	T. R. Hartell	5, 130
Jelly-glass	W. M. Kirchner	5, 206
Jelly-glass and cap	J. H. Smith, D. C. Ripley, and A. Kwoezalla.	5, 055
K.		
Knitted trimming	M. Landenberger	4, 860
Knobs, Cattle-horn	H. J. Frantz	5, 136
L.		
Ladies' dress-comb	W. O. Capron	5, 396
Lamp-shade	J. B. Russell	4, 934
Lamp-shade	C. Binzer	5, 320
Landmark	J. H. Parrish	4, 557
Lard-pail	J. J. Brockee	4, 837
Lead-pencil	J. Reckendorfer and T. H. Müller	4, 642
Letter-box	G. F. Topliff	5, 264
Liquor-holder	J. A. and F. Dunworth	4, 625
Lock-case for satchels, &c.	B. Steinmetz	5, 373
Long comb	C. E. Moore	4, 993
M.		
Manger	J. L. Jackson	5, 369
Manger	J. L. Jackson	5, 370
Manger	J. L. Jackson	5, 398
Mantel, Iron	C. B. Evans, J. Carlisle, and G. H. Burrows.	4, 953
Mantel, Iron	C. B. Evans, J. Carlisle, and G. H. Burrows.	4, 959
Mantel, Iron	C. B. Evans, J. Carlisle, and G. H. Burrows.	4, 960
Mantel, Iron	C. B. Evans, J. Carlisle, and G. H. Burrows.	4, 961
Mat	J. Magee	5, 110
Mat	J. Magee	5, 111
Match-box	J. Kintz	5, 428
Match-safe	A. D. Judd	4, 630
Match-safe	G. R. Hubbard	4, 814
Match-safe and paper-weight, Combined	G. W. Brown	5, 257
Medal	S. L. Denney	4, 919
Medallion head of Jackson	J. H. Miller	5, 433
Medallion head of Washington	J. H. Miller	5, 150
Mitten, Back of	W. S. Tooker	4, 716
Mold for lager-beer glasses	J. P. Pears	4, 640
Mold for lager-beer glasses	J. P. Pears	4, 641
Molding	J. H. Ferreira	5, 176
Mosquito-netting	T. Carmichael	4, 840
Mucilage-bottle	L. Dovell	5, 234
Muff	S. Herzig	4, 702
Muff	W. Ettinger	5, 104
Muff and collar box	R. M. Seldis	5, 087
N.		
Napkin-ring	C. W. Goodhue	4, 977
Needle-packages, Shoe-case for	G. P. Farmer	4, 842
O.		
Oil-cabinet	M. H. Wiley	5, 271
Oil-cloth	H. Kagy	5, 179
Oil-cloth	H. Kagy	5, 180
Oil-cloth	H. Kagy	5, 181
Oil-cloth	H. Kagy	5, 182
Oil-cloth	H. Kagy	5, 243
Oil-cloth, Floor	J. T. Webster	5, 058
Oil-cloth, Floor	J. T. Webster	5, 059
Oil-cloth pattern	J. Paterson	4, 639
Oil-cloth pattern	J. Paterson	4, 674

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
Oil-cloth pattern.....	H. Kagy	4, 691
Oil-cloth pattern.....	C. T. Meyer	5, 112
Oil-cloth pattern.....	J. Paterson	5, 393
Oil-cloth pattern, Floor.....	J. Robley	4, 711
Oil-cloth pattern, Floor.....	J. Robley	4, 712
Oil-cloth pattern, Floor.....	J. Robley	4, 713
Oil-cloth pattern, Floor.....	V. E. Meyer	4, 927
Oil-cloth pattern, Floor.....	C. L. Pierpont.....	4, 931
Oil-cloth pattern, Floor.....	C. L. Pierpont.....	4, 932
Oil-cloth pattern, Floor.....	C. T. Meyer	5, 113
Oil-cloth pattern, Floor.....	C. T. Meyer	5, 114
Oil-cloth pattern, Floor.....	C. T. Meyer	5, 115
Oil-cloth pattern, Floor.....	C. T. Meyer	5, 116
Oil-cloth pattern, Floor.....	C. T. Meyer	5, 149
Oil-cloth pattern, Floor.....	C. L. Pierpont.....	5, 152
Oil-cloth pattern, Floor.....	C. L. Pierpont.....	5, 153
Oil-cloth pattern, Floor.....	C. L. Pierpont.....	5, 154
Organ-case.....	C. E. Bacon	4, 700
Organ-case.....	L. K. Fuller	5, 289
Organ-case.....	L. K. Fuller	5, 290
Organ-case.....	J. R. Lomas.....	5, 317
Ornament for fountains, &c	J. Moore and W. Wilkinson	4, 804
Ornament for fountains, &c	J. Moore and W. Wilkinson	4, 805
Ornament for fountains, &c	J. Moore and W. Wilkinson	4, 806
Ornament for fountains, &c	J. Moore and W. Wilkinson	4, 807
Ornament for fountains, &c	J. Moore and W. Wilkinson	4, 808
Ornament for the backs of lounges.....	G. Hartzell	4, 751
Ornament on harness-saddles	L. Rommeiks	5, 191
Oven.....	J. H. Keyser.....	4, 817
Oven-shovel.....	T. Lyons	4, 953
Overshoe, Rubber.....	A. O. Bourn	5, 065
Overshoe, Rubber.....	A. O. Bourn	5, 066
Overshoe, Rubber.....	A. O. Bourn	5, 067
Overshoe, Rubber.....	I. F. Williams	5, 094
Overshoe, Rubber.....	I. F. Williams	5, 095
P.		
Package.....	D. Dick.....	4, 875
Paper bag.....	S. W. Valentine	4, 937
Paper-box cover.....	J. W. Carter	5, 134
Paper-weight.....	G. B. Garrett	5, 202
Park-seat.....	E. O. Schwagerl	4, 675
Parlor-organ case.....	L. K. Fuller	5, 299
Pedestal for a cake-dish.....	G. Gill	4, 696
Pencil and receptacle, Combined	H. J. Wickham	4, 566
Pen or pencil case.....	E. S. Johnson	5, 377
Photographic-card frame.....	M. J. Rice	5, 050
Piano-fortes, Ornamentation of.....	W. Leigh	4, 888
Pickle-jars.....	J. Jepson	5, 371
Pickle-jars.....	H. C. Wilcox	5, 374
Picture-frame.....	J. H. Bellamy	4, 694
Picture-frame.....	L. L. Demick	5, 103
Picture-nail head.....	H. L. Judd	5, 252
Pipe-wrench.....	T. K. Cook.....	5, 017
Plate for cooking-stoves.....	C. Noble	4, 819
Plate for egg-beaters, Agitating.....	E. Bostick	5, 296
Plate of a cooking-stove.....	A. M. Mothershead	4, 895
Plate of a cooking-stove.....	J. R. Rose and E. L. Caley	4, 902
Plate of alarm-clocks.....	J. M. Case	5, 069
Plate of shuttle and tassel hooks.....	E. J. Steele	5, 274
Plates of a stove.....	J. Beesley and J. J. Ferris	4, 916
Plow-clevis.....	J. M. Cook.....	4, 615
Pocket-book tip.....	J. C. Arms	4, 664
Post cap, Hitching.....	R. S. Austin	4, 746
Post, Iron.....	M. D. Jones.....	5, 378
Post-office bulletin-board.....	B. F. Rogers	5, 229
Press, Gaug.....	W. Denison	4, 747
Printed carpet.....	E. Demoussy.....	5, 329
Printed carpet.....	C. Dresser	5, 330
Pump.....	L. Egleston	4, 585
Pump piston, Steam.....	J. H. McGowan	5, 049
Pump, steam.....	W. W. Hanscom.....	5, 026
Puzzle-block.....	S. Loyd	4, 793
R.		
Rack, basket, Car.....	M. Tower	5, 145
Rack for robes.....	M. Nuhn	5, 423
Railing for cemetery-lots.....	A. L. Murphy	4, 556
Range.....	C. J. Wood	4, 835

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
Range	W. H. Burrows	4, 970
Range, Cooking	L. M. Harwood	5, 443
Range, Cooking	S. P. Robinson	5, 451
Range or stove, Cooking	A. and S. G. Richmond	5, 141
Reed-organ pipes	C. E. Snell	5, 207
Reflector	A. Wilhelm	4, 693
Rubber boots and shoes, Ornamentation of	A. O. Bourn	5, 093
Rubber eraser	S. D. Hovey	4, 904
Rubber shoe	C. Meyer	4, 861
Rubber shoe	C. Meyer	4, 862
Rubber shoes, Ornamentation of	C. Meyer	4, 769
S.		
Saddle and bridle bracket	J. L. Jackson	5, 400
Salt-cellar	J. B. Larner	4, 736
Sash-holder	E. C. and G. O. Heister	4, 903
Sash-holder	A. W. Lawrence	5, 308
Sash-lift	A. Wunder	5, 347
Sash-weight	W. H. Short	4, 850
Satchel, Ladies'	A. Senne	5, 232
Satchels, Hand-cap for	G. Havell	4, 853
Saw	W. Kidd	4, 706
Saw	H. S. Miller	5, 226
Screen	W. N. Bartholomew	4, 676
Screen for a steam-heater	C. L. Hubbard	4, 886
Seat, School	W. H. Joeckel	4, 690
Sieve	R. J. Mann	4, 637
Sertee	J. W. Fiske	5, 147
Sewing-machine cover	J. Wilson	5, 313
Sewing-machine frame	J. B. Secor	5, 407
Sewing-machine leg	J. B. Secor	5, 155
Sewing-machine sample-trunk	F. S. Fahnestock	4, 616
Sewing-machine stand	H. Loth	4, 604
Sewing-machine, Treadle for	J. B. Secor	5, 231
Shawl	C. H. Landenberger	4, 555
Shawl	M. Landenberger	4, 670
Shawl	H. Erbs and J. Barth	5, 412
Shoe-clasp	G. Oldham	5, 151
Shoe, Infants'	W. M. Carpenter	4, 646
Shot-pouch, &c.	J. T. Capewell	4, 972
Shovel	P. W. Groom	5, 043
Show-card	C. S. Hall	4, 629
Show-card for hair-nets	T. Hall	5, 413
Show-case	J. R. Gallegos	4, 586
Show-case	W. S. Grove	4, 623
Show-case	W. H. Grove	4, 724
Show-case	J. D. Vredenburg	4, 824
Show-case	W. H. Grove	4, 946
Show-case	W. H. Grove	4, 978
Show-case	W. H. Core	5, 123
Show-case	T. E. Wood	5, 244
Show-case and drawers	G. P. Farmer	4, 841
Shutter-bar	L. Crooke	5, 070
Side-frame of socket-desks	A. Franklin	4, 725
Side of railway-car	M. Buell and W. W. Lesley	4, 538
Sign	J. B. Moore and J. P. Robitzer	5, 227
Slate-pencil sharpener	C. Kennedy	5, 153
Socket for lifting-handle	W. M. Smith	5, 319
Soda-fountain	G. F. Meacham	4, 620
Soda-fountain	G. F. Meacham	4, 768
Soldiers' monument	L. A. Tift	4, 565
Spade	H. Parkman	4, 969
Spoon	E. De Bussan	4, 667
Spoon-handle	B. D. Beiderhase	5, 267
Spoon-handle	J. Fradley	5, 298
Spoon or fork handle	W. Parkin	4, 710
Spoon or fork handle	G. Sharp	4, 715
Spoon or fork handle	G. Wilkinson	4, 719
Spoon or fork handle	E. C. Moore	4, 531
Spoon or fork handle	W. B. Durgin	5, 071
Spoon or fork handle	E. C. Moore	5, 077
Spoon or fork handle	G. Wilkinson	5, 093
Stair-rod	W. B. Gould	5, 177
Stair-rod	W. B. Gould	5, 178
Stair-rod fastening	W. B. Gould	5, 203
Stand for a billiard-marker, Portable	H. W. Collender	4, 985
Statuary	A. Van Wart	4, 744
Statue	A. Fusary	4, 750
Steam-engine	C. M. Farrar	5, 146

Alphabetical list of designs—Continued.

Invention or discovery.	Name of patentee.	No.
Steam-engine governor case.....	J. A. Lynch.....	4, 794
Steam-engine, Upright.....	A. A. Wilson.....	5, 305
Stem of a tobacco-pipe.....	J. Watts.....	4, 587
Stocking.....	J. Hogg.....	4, 704
Stone-drag.....	J. P. Adams and G. Hyde.....	4, 732
Stove.....	J. H. Keyser.....	4, 816
Stove.....	L. F. Rollins.....	4, 821
Stove.....	L. W. Harwood.....	4, 947
Stove.....	R. Scorer and R. Ham.....	5, 394
Stove, Cooking.....	N. S. Vedder and F. Ritchie.....	4, 611
Stove, Cooking.....	J. Abendroth.....	4, 810
Stove, Cooking.....	J. L. Knechler.....	4, 815
Stove, Cooking.....	J. Steffe.....	4, 823
Stove, Cooking.....	G. Wellhouse.....	4, 825
Stove, Cooking.....	J. R. Rose and E. L. Caley.....	4, 910
Stove, Cooking.....	W. H. Burrows.....	4, 971
Stove, Cooking.....	N. S. Vedder and S. Ritchie.....	5, 156
Stove, Cooking.....	N. S. Vedder and T. S. Heister.....	5, 159
Stove, Cooking.....	N. S. Vedder and T. S. Heister.....	5, 160
Stove, Cooking.....	N. S. Vedder and T. S. Heister.....	5, 161
Stove, Cooking.....	N. S. Vedder and T. S. Heister.....	5, 162
Stove, Cooking.....	W. A. Spicer.....	5, 263
Stove-cover lifter.....	E. B. Wilbur.....	5, 294
Stove, Heating.....	N. Brayer.....	4, 588
Stove, Heating.....	S. E. Hewes.....	4, 885
Stove, Heating.....	N. S. Vedder and S. Ritchie.....	5, 157
Stove, Heating.....	N. S. Vedder and T. S. Heister.....	5, 158
Stove, Heating.....	J. D. Miller.....	5, 301
Stove, Heating.....	R. Scorer and R. Ham.....	5, 349
Stove, Parlor.....	J. Martino and J. Currie.....	4, 818
Stove, Parlor.....	R. Scorer and R. Ham.....	5, 395
Stove-plate.....	N. S. Vedder and F. Ritchie.....	4, 645
Street-lamp.....	T. D. Stetson.....	4, 936
Stucco center-piece.....	J. John.....	4, 669
Sugar-bowl, &c.....	J. H. Hobbs.....	4, 689
Sugar-tongs.....	J. Hall, 2d.....	5, 307
Sun-bonnet, Horse.....	J. Anderson.....	5, 210
Surcingle-fastening.....	M. Wesson.....	5, 060
Suspender-link.....	E. Oldfield.....	4, 621
Swivel and snap-hook.....	P. G. Beckley.....	5, 041
Sword.....	E. S. Warren.....	4, 730
T.		
Table, Billiard.....	W. H. Griffith.....	5, 322
Table-caster.....	W. Parkin.....	4, 697
Table-caster.....	C. H. Latham.....	5, 131
Table-caster.....	D. Sherwood and G. D. Dudley.....	5, 312
Table glass-ware, Ornamentation of.....	W. C. King.....	4, 753
Talma or cloak-garment.....	E. Flues.....	4, 828
Tea-bell.....	H. C. Wilcox.....	5, 196
Teapot.....	G. Gill.....	4, 813
Thread and needle case.....	T. R. Timby.....	4, 622
Thread and sewing-silk, Sample-case for.....	J. N. Leonard.....	5, 443
Tongs for coal, &c.....	J. A. Ervien.....	5, 348
Tongue-support.....	J. Keller.....	5, 204
Tool, Garden.....	R. A. Moore.....	4, 709
Toy-building blocks.....	R. G. Britton.....	5, 404
Toy, Child's.....	J. T. Duff.....	4, 877
Toy, Steam-engine.....	A. Buckman and J. W. H. Huffington.....	4, 733
Toy, Steam-engine.....	E. P. Rider.....	4, 849
Toy, Steam-engine.....	E. P. Rider.....	5, 004
Trolling-spoon.....	J. H. Mann.....	5, 291
Twine-reel.....	C. H. Tiebout.....	5, 039
Type.....	J. Herriet.....	4, 552
Type.....	J. Herriet.....	4, 553
Type.....	R. Smith.....	4, 559
Type.....	R. Smith.....	4, 560
Type.....	R. Smith.....	4, 561
Type.....	A. Gilbert.....	4, 563
Type.....	H. Flinsch.....	4, 626
Type.....	A. Gilbert.....	4, 627
Type.....	A. Little.....	4, 673
Type.....	W. H. Page.....	4, 726
Type.....	W. H. Page.....	4, 727
Type.....	R. Smith.....	4, 743
Type.....	W. H. Page.....	4, 820
Type.....	J. K. Rogers.....	4, 981
Type.....	J. A. St. John.....	4, 982
Type.....	J. Herriet.....	4, 990
Type.....	J. Herriet.....	4, 991

Alphabetical list of reissues.

Invention or discovery.	Name of patentee.	No.
Type	A. Kay	5, 046
Type	R. Smith	5, 056
Type	A. McLeester	5, 342
Type	A. Little	5, 450
Type-border	W. H. Page	4, 728
U.		
Urinal and water-closet, Public	F. J. Smith	4, 833
V.		
Vise, Saw-filing	W. A. Perkins	4, 848
W.		
Wagon-seat	P. P. Child	5, 251
Watch-hand	B. A. Goodell	5, 316
Watch-plate	E. Marcile	4, 795
Watch-plate	E. Hathaway	4, 799
Water-cooler and refrigerator	J. Liming	5, 031
Water-proof goods	B. Metz	5, 429
Water-proof goods	B. Metz	5, 430
Water-proof goods	B. Metz	5, 431
Water-proof goods	B. Metz	5, 432
Weather-boarding	J. Jacoby	4, 964
Weighing-scales, Counter	P. Cinquini	4, 874
Whisk-broom	G. Stackpole	4, 729
Window-fastener	W. Nelson	4, 692
Window-sash holder	C. M. Drury	4, 687

REISSUES.

A.		
Air, Apparatus for carbureting	B. Sloper	4, 476
Air-compressing apparatus	J. S. Patric	4, 337
Alarm, burglar, Electro-magnetic	W. B. Guernsey	4, 297
Alarm, Fire	J. O. Fowler, jr.	4, 554
Alcoholic liquors, Manufacture of, from the rhubarb plant	J. H. Deacon	4, 606
Alizarine, Manufacture of	C. Graebe and C. Liebermann	4, 320
Animal-poke	H. F. Chapin	4, 667
Anthracene, Preparing coloring-matter from	J. Brönnner and H. Gutzkow	4, 558
Artesian wells, Method of constructing	N. W. Green	4, 372
Artificial asphalt rock, Manufacture of	A. B. Vandemark	4, 591
Auger-bits, Machine for bending the lips of	J. Swan	4, 517
Auger-bits, Machine for manufacturing	J. Swan	4, 516
Augers, Machine for forming the lips of	J. Swan	4, 569
Axle-box	D. Dalzel	4, 594
Axle, Wagon	W. A. Lewis	4, 584
B.		
Back-chain for cart-saddles	W. B. McClure	4, 679
Bark-extracts, Apparatus for evaporating and concentrating	T. W. Johnson, jr., and A. W. Goodell	4, 531
Barrel	H. G. Porter	4, 272
Barrel-filler, Automatic	S. C. Catlin	4, 617
Barrel-filler, Automatic	S. C. Catlin	4, 618
Barrels, Apparatus for pitching	L. Schulze	4, 294
Base-burner	D. G. Littlefield	4, 585
Bayonets, Manufacture of, and apparatus therefor	H. Waters	4, 394
Bed bottom, Spring	H. E. Bissell	4, 564
Bedstead and tester	F. Layaux	4, 414
Bedstead-fastening	A. M. Rodefer	4, 432
Beltings, vulcanized-rubber, Finishing	C. McBurney	4, 662
Belts and pulleys, Compound to increase the friction between	L. F. Robertson	4, 239
Bessemer steel, Apparatus for the manufacture of	H. Chisholm	4, 439
Binder, Tempering	G. W. Emerson	4, 545
Binding in invoice-books	J. L. Rile	4, 577
Bit-brace	H. S. Bartholomew	4, 518
Bit-brace	H. S. Bartholomew	4, 519
Bit, Expansive	W. A. Clark	4, 663
Boiler and washing-machine	D. H. and J. B. Savage	4, 521
Boiler for ranges, stoves, &c	W. B. Scaife	4, 467
Boiler, Kitchen	W. B. Scaife	4, 393

Alphabetical list of reissues—Continued.

Invention or discovery.	Name of patentee.	No.
Boiler, Steam	P. Quinn	4, 302
Boiler, steam, Sectional	W. H. Cornell	4, 677
Boiler, Wash	C. N. Tyler	4, 544
Bolt for safes	G. L. Damon	4, 389
Bolt-heading machine	J. Minter	4, 641
Bolts and rivets, Device for cutting	J. Johnson	4, 299
Boot and shoe	C. S. Dunbrack	4, 422
Boot and shoe heel trimming-machine	E. J. Beane	4, 481
Boots and shoes, Insole for	M. A. Johnson	4, 547
Bracelets, Manufacture of enameled	A. Coddling	4, 253
Braid, trimming, leather, &c., Imitation	H. Loewenberg	4, 444
Brake, Car	W. H. Dunham and J. Widney	4, 465
Bread, Device for baking	A. J. Quackenbush and G. Hawn	4, 230
Breast-pump	M. Mattson	4, 282
Bridge, Iron	D. H. Morrison	4, 398
Bristles in brush-stocks, Method of holding	C. D. Rogers and M. P. Wilkins	4, 459
Broiler	D. E. Roe	4, 651
Broiler	D. E. Roe	4, 652
Brush, Boiler-flue	R. King	4, 442
Building for preserving fruit and other substances	B. M. Nyce	4, 487
Buildings, Cooling and ventilating	T. Krausch	4, 607
Bar for knitting-machines	M. Van Auken	4, 555
Burner, Lamp	W. H. Gray	4, 435
Burner, Lamp	H. W. Hayden	4, 541
Button-hole	B. M. Smith	4, 303
C.		
Cans, tin, Machine for making	E. W. Bliss	4, 659
Can, Wood-incased	O. S. Camp	4, 650
Capstan and windlass	D. N. B. Coffin, jr.	4, 453
Car, Cattle	J. W. Street	4, 340
Carpenters' squares, Machine for figuring	N. Millington	4, 262
Carpet-lining	J. F. Fales	4, 296
Carriage, Children's	W. E. Crandall	4, 223
Carriage top-prop block	S. L. Barnett and S. Beery	4, 621
Car, Stock	L. Swearingen	4, 336
Cartridge, Metallic	H. Berdan	4, 491
Cart, Street-sprinkling	L. Rodenhausen	4, 590
Case for ribbons, laces, &c	S. Whitaker	4, 611
Caster, Revolving	C. H. Latham and J. S. Lugg	4, 656
Caster, Revolving	C. H. Latham and J. S. Lugg	4, 657
Catarrh, &c., Compound for treating by inhalation	D. Slade	4, 445
Cattle-car, Railway	National Cattle-Car Company, Salem, Ohio	4, 368
Cement pipes, Machine for making	E. L. Baker, H. Knight, and E. Dayton	4, 563
Chair, Folding	F. M. Holmes	4, 280
Cheese-vat	E. H. and W. A. Stuart	4, 416
Cigar-bunches, Apparatus for pressing, shaping, and drying	A. Pearl	4, 458
Clothes-frame	J. E. Earle	4, 503
Clothes-frame	J. E. Earle	4, 504
Clothes-washer	A. B. Mercier	4, 227
Cloth, Process of obtaining bright colors upon, by printing	A. Paraf	4, 363
Cloth, Steaming and cooling	L. M. Heery	4, 575
Clover-seed, Machine for thrashing, hulling, and cleaning	M. R. Mansfield	4, 566
Coffee, Process for treating	J. Ashcroft	4, 479
Coffee, Treating	J. Ashcroft	4, 480
Compound, Detergent	W. Berry	4, 370
Compound, Lubricating	H. Grogan	4, 440
Cords, Machine for covering	J. Turner and I. E. Palmer	4, 649
Corks, Machine for manufacturing	M. F. Crocker	4, 654
Cooler, Milk	A. E. Baldwin	4, 573
Corn, Machine for husking	L. A. Aspinwall	4, 388
Corset	C. D. Rutherford	4, 415
Corset, Self-supporting	C. A. Griswold	4, 427
Cotton-gin	D. Pratt	4, 664
Cotton, Machine for opening	W. C. Jillson and A. B. Palmer	4, 312
Coupling, Car	W. B. Suedaker	4, 339
Coupling, Hose	J. C. Cooke	4, 314
Coupling, Hose	J. C. Cooke	4, 605
Coupling, Shaft	S. C. Schofield	4, 256
Coupling, Thill	D. A. Johnson	4, 681
Cracklings, &c., for fertilizers, Machine for reducing	A. Smith	4, 265
Crib for horses	H. Eddy	4, 405
Crucible for melting steel and other metals	A. Pickering, C. R. Vickery, C. R. Atwood, and The Phoenix Manufacturing Company	4, 608
Cultivator	B. Tinkman	4, 231
Cultivator	A. Adams	4, 252
Cultivator	T. Bertrand and P. Sames	4, 309

Alphabetical list of reissues—Continued.

Invention or discovery.	Name of patentee.	No.
Cultivator	T. M. Quiston	4,383
Cultivator	L. Packard	4,474
Cultivator	W. S. Weir	4,489
Cultivator	T. F. Bertrand and P. Sames	4,581
Cultivator	B. Tinkham	4,600
Cultivator	W. S. Weir, jr.	4,610
Cultivator	F. J. Underwood	4,665
Cultivator, Corn	A. Kinyon	4,485
Curtain or shade fixture	W. Campbell	4,234
Cut-off gearing, Variable	J. E. McKay	4,640
Cutting and sewing oval seams, Mechanism for	A. Judson	4,639
D.		
Dental plate, Atmospheric	N. T. Folsom	4,290
Diaper	J. C. Hempel	4,424
Disinfectant or carbolic-acid soap	C. J. Ames and C. A. Seely	4,352
Ditching and grading machine	W. J. Wanchope	4,676
Drawers	H. G. Fisk, T. R. Clark, and T. J. Flagg	4,455
Dredge-box	A. F. Tripp	4,615
Drill, Grain	L. Wight	4,499
Drill, Seed	F. H. Manny	4,307
Dyes or coloring-matters from anthracene... (Div. B) ..	C. Graebe and C. Liebermann	4,321
E.		
Electro-magnets, Construction of	H. M. Paine	4,237
Engine, Electro-magnetic	J. P. Tirrell	4,632
Engine, pumping, Steam	N. W. Wheeler	4,478
Engine, Steam	P. Estes	4,279
Engine, Steam	J. Houpt	4,374
Evaporating-pan for saccharine liquids	F. G. Butler	4,528
F.		
Fabric for head-covering	C. F. Bosworth	4,381
Fare-box for vehicles	J. B. Slawson	4,648
Fare box, Passenger	J. B. Slawson	4,240
Fastening for paint-cans, &c.	J. K. Chase	4,628
Fatty substances, Process of extracting	C. F. Simonin and E. W. Coffin	4,508
Faucet	J. Powell	4,338
Feeding paper to printing-presses	R. M. Hoe	4,429
Felt hats, Machine for forming the brims of	W. A. Fenn	4,235
Fire-arm, Breech-loading	K. V. Barnekov	4,308
Fire-arm, Repeating	W. H. Morris and C. L. Brown	4,496
Fire-arm, Revolving	W. C. Dodge	4,483
Fire-place heater, Base-burning	D. Stuart and L. Bridge	4,387
Flour-packer	S. Taggart	4,626
Fluting and sad iron	M. H. Knapp	4,443
Fluting-machine	H. H. Cole	4,349
Fluting-machine	S. G. Cabell	4,653
Fruit-drier	J. P. Miller	4,495
Fruits, Treating, to dry, saccharify, and preserve them ..	C. Alden	4,287
Fruits, vegetables, and meat, Drying	F. H. Smith	4,468
Furnace for soldering	L. Cutting	4,565
Furnace for the manufacture of iron and steel	H. Ross and J. H. Clemens	4,609
Furnaces, hot-air, Mode of regulating the draught of ..	A. H. Mershon	4,644
G.		
Gas, illuminating, Manufacture of	F. King	4,457
Gasolines and drop-lights, Apparatus for suspending ..	S. B. Vance	4,236
Gate-opening apparatus, Electro-magnetic	W. Robinson	4,274
Generator, Steam	A. L. Pennock	4,301
Generator, Steam	G. H. Babcock and S. Wilcox	4,512
Generator, Steam	R. E. Rogers and J. Black	4,535
German hand-cheese, Manufacture of	F. C. and T. F. Mende	4,323
Glass, Embellishment of	E. Ingraham	4,441
Glass for mirrors and reflectors, Silvering	W. A. Walker	4,477
Glass-molds, Machine for operating	W. C. King	4,571
Globe for gas-lights	T. Trudeau	4,633
Glove	R. D. Burr	4,278
Governor for steam-engines	J. Judson	4,655
Grain, Machine for decorticating	W. Ager	4,452
Grain, Process for decorticating	W. Ager	4,451
Grain-separator	S. Howes, A. and N. Babcock, and C. Ewell	4,546
Grate	D. G. Littlefield	4,53
Grate-bar	J. R. Smith	4,511
Gridiron, griddle, and frying-utensil, Combined	S. Lee	4,619
Grindstone-journal box	T. W. Brown	4,31

Alphabetical list of reissues—Continued.

Invention or discovery.	Name of patentee.	No.
Grist-mill and cotton-seed huller, Combined.....	J. W. Smith.....	4, 446
Gun-barrels, Manufacture of	J. H. Burton	4, 686
Gun-carriage	J. B. Eads.....	4, 471
Gun-carriage	J. B. Eads.....	4, 472
H.		
Hand-stamp	T. J. W. Robertson.....	4, 675
Harness for horses	J. Rouse	4, 325
Harness-ring	H. N. Eames	4, 295
Harness trimmings	J. Bauer	4, 580
Harvester	H. Waterman	4, 251
Harvester	H. F. Mann	4, 281
Harvester	J. Butter	4, 420
Harvester	Ketchum Harvesting-Machine Com- pany.....	4, 484
Harvester	E. D. Buckman and S. A. Sisson	4, 582
Harvester	Ketchum Harvesting-Machine Com- pany.....	4, 672
Harvester	Ketchum Harvesting-Machine Com- pany.....	4, 673
Harvester-reel	J. H. Keller	4, 629
Hat	J. P. Beatty	4, 277
Hat-lining and tip	T. W. Bracher	4, 482
Hay-rake, Horse	N. M. Barnes	4, 232
Head-block	E. H. Stearns	4, 625
Head-block for saw-mills.....	E. H. Stearns	4, 551
Heater, Lamp	W. N. White	4, 627
Heating-apparatus, Steam.....	S. F. Gold and W. A. Foskett.....	4, 643
Hides, Depilating.....	J. E. Siebel.....	4, 549
Hoe	E. Warren	4, 461
Hoisting-apparatus.....	Otis, Brothers & Co.....	4, 269
Hoisting-apparatus.....	Otis, Brothers & Co.....	4, 270
Hoisting-apparatus.....	Otis, Brothers & Co.....	4, 271
Hoisting-machine	H. J. Reedy	4, 273
Hook, Clothes-wringing	J. H. Pratt	4, 343
Horseshoes, Machine for making.....	The Howe Horseshoe-Machine Com- pany.....	4, 315
Horse-power	H. Aldridge	4, 379
Horse-power, Mounted.....	M. B. Erskine	4, 423
Hub for carriage-wheels	A. Warner	4, 642
Hydrant	W. Race	4, 475
I.		
Ice-machine.....	C. Plagge	4, 525
Ice-machine.....	F. Windhausen	4, 603
Ice chambers, refrigerating-chambers, &c., Construc- tion of	E. Brainard	4, 437
India-rubber rollers, Manufacture of	J. B. Forsythe.....	4, 244
Induction-coil apparatus and circuit-breaker.....	P. W. Page.....	4, 588
Instrument for draughting garments.....	U. L. Leete	4, 225
Instrument for draughting garments.....	U. L. Leete	4, 226
Instrument for railroad-signals and other purposes, Double-circuit.....	T. S. Hall	4, 493
Iron and steel, Furnace for the manufacture of.....	H. Ross and J. H. Clemens	4, 609
Iron and steel, Manufacture of	R. Yielding	4, 434
Iron and steel, Manufacture of	J. Jameson	4, 622
Iron and steel, Refining and tempering	A. H. Siegfried.....	4, 507
Iron-tender frame	B. W. Healey	4, 661
J.		
Jar, Fruit	H. E. Shaffer	4, 460
Journal-box, Self-regulating.....	J. Duff	4, 502
K.		
Kiln, Burning.....	B. Kreischer	4, 260
L.		
Lamp.....	A. H. North.....	4, 284
Lamp.....	L. White	4, 304
Lamp.....	H. Halvorson	4, 413
Lamp.....	C. B. and S. S. Mann	4, 572
Lamp.....	H. Halvorson	4, 660
Lamp-wick feeder	G. Cade	4, 385
Lantern.....	W. H. Bonnell	4, 331
Lantern.....	W. H. Bonnell	4, 332
Lantern	W. Westlake, J. F. Dane, and J. P. Covert.....	4, 601

Alphabetical list of reissues—Continued.

Invention or discovery.	Name of patentee.	No.
Lathe, Turning	L. R. Faught.....	4, 390
Leather, Machine for buffing, whitening, and polishing.	A. W. Pratt	4, 534
Leather, Machine for rolling	J. Whitney	4, 562
Leather, Machine for scraping	J. T. Barnstead	4, 258
Lightning-rod.....	L. King.....	4, 355
Lock.....	L. F. Munger	4, 674
Lock and detector	J. H. Lyon	4, 620
Lock-nut.....	J. Miller, jr	4, 283
Lock-nut.....	J. H. Gridley	4, 354
Lock-nut.....	P. L. Gibbs.....	4, 412
Lock, Permutation	G. Rosner	4, 488
Lock, Permutation	J. C. Hintz, jr.....	4, 542
Lock, Permutation	L. F. Munger	4, 596
Loom-harness, Machine for making..... (Division A) ..	J. Sladdin	4, 509
Loom-harness, Machine for making..... (Division B) ..	J. Sladdin	4, 510
Loom-shuttle	T. Isherwood	4, 522
Lounge, Bed	J. Seymour, W. H. Coolidge, and C. Stimson.....	4, 275
Lounge, Folding	J. W. McDonough	4, 261
Lozenges, Machine for the manufacture of	O. R. Chase	4, 634
Lubricator	J. Broughton	4, 593
Lubricator	J. B. Wickersham	4, 602
Lubricator	J. B. Wickersham	4, 658
Lumber, Process of seasoning.....	H. H. Beach.....	4, 384
* M.		
Mantel and front for fire-places..... (Division A) ..	D. K. Innes and W. W. Magill.....	4, 612
Mantel and front for fire-places..... (Division B) ..	D. K. Innes and W. W. Magill.....	4, 613
Mattress, Spring	E. L. Bushnell	4, 616
Melodeon	E. D. Louis	4, 486
Metal corner-piece for protecting the corners of wooden bodies.	E. A. and C. M. Stratton.....	4, 365
Metallic dasher for vehicles, Adjustable.....	G. M. Peters	4, 408
Mill, saw, Circular.....	S. R. Smith	4, 409
Mold	W. Ainsworth	4, 347
Motive-power, Transmitting	R. T. Smith	4, 623
Muff and collar box	J. P. Jones	4, 313
N.		
Nuts, Locking-washer for	J. H. Gridley.....	4, 406
O.		
Oil-cup.....	J. P. Haines.....	4, 361
Oils from vegetable and animal substances, Extraction and manufacture of.	T. Richardson, J. J. Lundy, and R. Irvine.....	4, 630
Oil tank and reservoir	W. J. Brundred	4, 492
Oily and fatty matters, Process of extracting.....	L. S. Robbins	4, 578
Ore, Grinding and amalgamating.....	T. Bates	4, 380
Ores, Machine for separating.....	S. R. Krom	4, 430
Overshoe.....	H. G. Tyler	4, 257
P.		
Package for lard	C. L. Tucker	4, 369
Paint, &c., Treating linseed and other oils for	D. E. Brenig	4, 557
Paint for ships' bottoms..... (Division A) ..	J. G. Tarr and A. H. Wonson.....	4, 598
Paint for ships' bottoms..... (Division B) ..	J. G. Tarr and A. H. Wonson.....	4, 599
Paper-folding machine	C. Chambers, jr	4, 266
Paper-stock from certain plants, Manufacture of	J. Pickles.....	4, 524
Paper, thick, Making	S. G. Lewis	4, 300
Paraffine and other substances, Process and apparatus for purifying.	F. Lambe	4, 397
Pavement, Concrete.....	J. J. Schillinger	4, 364
Pessary	W. R. Gardner	4, 291
Petroleum and its products, Process of treating.....	J. A. Tatro	4, 417
Petroleum and other hydrocarbons, Apparatus for distilling.	A. H. Tait and J. W. Avis.....	4, 367
Petroleum and other oils, Apparatus and process of distilling.	A. H. Tait and J. W. Avis.....	4, 366
Petroleum, Process and apparatus for distilling, separating, and purifying.	E. G. Kelley	4, 375
Photographs, Printing	J. Albert	4, 328
Pipe and fixture for wells	J. H. Duck and E. H. Whitcomb.....	4, 267
Pipe, Feed-water..... (Division A) ..	J. Doyle	4, 345
Pipe, Feed-water..... (Division B) ..	J. Doyle	4, 346
Piston-packing	O. Collier	4, 350
Piston-rod packing.....	W. H. Miller	4, 587
Planter, Corn	W. Morrison	4, 559

Alphabetical list of reissues—Continued.

Invention or discovery.	Name of patentee.	No.
Plow	J. C. Pfeil	4, 533
Plow-coltter	W. W. Stillman	4, 597
Plow mold-boards and other purposes, Copper alloy for	W. Magee	4, 684
Plows, Blank for and die for making mold-boards for	W. M. Watson	4, 229
Press, Copying	E. W. Frost	4, 306
Press, Cotton	P. Williams	4, 327
Press, Printing	R. M. Hoe and S. D. Tucker	4, 400
Press, Printing	M. Gally	4, 646
Press, Punching	M. G. Wilder	4, 448
Prices-current bulletins, &c., Producing	W. Smith and H. D. Rogers	4, 447
Pulley, Expanding	T. H. Savery	4, 685
Pulleys to shafts, Device for securing	J. H. Buckman	4, 288
Punch	I. P. Richards	4, 228
Pump	R. M. Lafferty	4, 678
Pump-rod attachment	H. H. Locke	4, 682
R.		
Rack, Clothes	V. M. Heath	4, 505
Radiator	W. Steffe	4, 401
Railroad-ties, wood, Preserving	B. S. Foreman	4, 360
Railroad turn-table	A. J. Wright and L. Meeker	4, 410
Railway-rail joint, Securing	L. Fay	4, 224
Railways, Water-tank for	J. Morton	4, 543
Rake, Harvester	J. R. Parsons	4, 377
Rake, Harvester	J. C. Durborow	4, 395
Range, Cooking	W. Sanford	4, 526
Refrigerating and desiccating, Apparatus for	E. D. Brainard	4, 436
Refrigerator	J. H. Fisher	4, 242
Refrigerator	A. Fuller and L. P. Reichert	4, 645
Regulator for temperature in rooms, &c., Electro-magnetic	G. M. Sternberg	4, 326
Rice, coffee, and other grains, Machine for cleaning and scouring	W. Ager	4, 579
Road-wagon, Steam	C. W. Hermance	4, 311
Rock, Machine for channeling	E. G. Lamson	4, 407
Roller and fastening for clothes-wringers	R. B. Huguinin	4, 680
Roller for clothes-wringers	J. F. Holt	4, 473
Roofing-composition	J. H. Smyser	4, 624
Rooms, Method of cooling and ventilating	A. S. Lyman	4, 683
Ropes, Machine for tightening	A. Paget	4, 324
Rubber and brush	A. Charles	4, 529
Rubber roll for clothes-wringers	J. B. Forsyth	4, 243
S.		
Sad and fluting iron	F. Myers	4, 362
Saddle or sweat cloth	R. Spencer	4, 358
Salt-brines, Apparatus for evaporating	S. D. Gilson	4, 399
Saw-frame	The Bissell and Moore Manufacturing Company	4, 276
Seat and couch, Railroad-car	T. T. Woolraff	4, 241
Seat for school-desks	G. W. Hildreth	4, 268
Sediment-collector for steam-boilers	C. W. Deane	4, 635
Sewing and other machinery, Mechanical movement for Sewing-machine	J. Hanley	4, 583
Sewing-machine	C. O. Crosby	
Sewing-machine needle	C. H. Wilcox	4, 305
Sewing-machines, Binder for	W. N. Martin	4, 663
Sewing-machines, Bobbin-winder for	C. H. Palmer	4, 376
Sewing-machines, Folding-guide for	Wilcox and Gibbs Sewing Machine Company	4, 576
Sewing-machines, Guide for	J. S. Alter	4, 556
Sewing-machines, Presser and switch-divider for	A. S. Woodward	4, 500
Sewing-machines, Treadle-attachment for	W. Glover	4, 669
Sewing-machines, Treadle for	J. A. Bradshaw and W. H. Brown	4, 233
Sewing-machine table and cover	J. J. Wheat	4, 527
Shawl	M. Landenberger	4, 249
Shawl-strap	G. Crouch	4, 289
Sheet-rubber, Perforated	J. Haskins	4, 259
Shingle-machine	W. R. Close	4, 371
Shingle-straps, Machine for shearing and punching	T. E. Harris	4, 636
Shoe, Car-brake	W. H. Dunham and J. Widney	4, 466
Shoemakers, Edge-plane for	I. A. Dupham	4, 454
Signal-box for fire-alarm telegraphs, Automatic	M. G. Crane and E. Rogers	4, 513
Sisal grass and like substances, Machine for preparing	G. E. Hopkins and W. B. Shedd	4, 671
Skate	J. L. Plimpton	4, 292
Skate	J. L. Plimpton	4, 293
Skirt, Hoop	W. H. Towers	4, 316
Slide for extension-table	M. E. Carter and E. Mete	4, 317
Spark-arrester	E. Waud	4, 433
Spinning-machine, Lubricating-bolster for	M. P. Wilmarth	4, 666

Alphabetical list of reissues—Continued.

Invention or discovery.	Name of patentee.	No.
Spoke-tenoning and hub-boring machine	J. Deming	4, 552
Spoon, Iron	G. I. Mix	4, 506
Spring, Car	A. Hebbard and J. P. Onderdonk	4, 335
Spring, Car	A. Hebbard	4, 670
Spring for beds, &c.	C. Rich	4, 285
Squares and rules, Machine for graduating	N. Millington	4, 523
Stanchion	W. C. Clifford	4, 353
Staves, Machine for crozing	H. Elliott, E. Smith, and S. S. Gray	4, 411
Steel, Manufacture of	S. W. Kirk	4, 314
Stercil-plate	E. L. Tarbox	4, 402
Still for hydrocarbons	C. Lockhart and J. Gracie	4, 515
Stock car	A. Rank	4, 425
Stock-car	A. Rank, H. King, and J. Sharp	4, 498
Stock-car, Railway	J. S. Kendall	4, 514
Stone, Machine for channeling	T. Ross and R. Barrett	4, 264
Stone, Machine for cutting	G. Morgan	4, 263
Stone, stucco, &c., artificial, Manufacture of	G. A. Frear	4, 456
Stop-water, Sliding	H. G. Ludlow	4, 250
Stove, Base-burning	W. J. Keep	4, 386
Stove, Base-burning	A. C. Corse	4, 421
Stove, Base-burning	A. White	4, 426
Stove, Cooking	C. P. Geissenhainer	4, 254
Stove, Cooking	L. Hermance	4, 423
Stove, Cooking	Eddy, Corse & Co.	4, 530
Stove, Cooking	G. W. Walker	4, 540
Stove, Cooking	M. A. Boughton	4, 568
Stove, Heating	J. M. French	4, 595
Stove-lid and damper, Combined	W. Doyle	4, 359
Stove-pipe thimble	C. A. Buttles	4, 438
Stoves, Fire-plate for	E. Borleau	4, 501
Sugar, Apparatus and process for mixing	M. L. Senderling	4, 536
Sugar-draining machine, Centrifugal.... (Division A)	H. W. and R. Lafferty	4, 247
Sugar-draining machine, Centrifugal.... (Division B)	H. W. and R. Lafferty	4, 248
Suspender	J. B. Sharp and W. Seymour	4, 348
System of water-supply for cities	B. Holly	4, 373
T.		
Table, Fall-leaf extension	J. Dourson	4, 351
Tape-measure	L. P. Bradley	4, 419
Tap for oil-packages	A. Warth	4, 403
Tap for oil-packages	A. Warth	4, 404
Teeth, Rotary-harrow	J. F. Chase	4, 464
Telegraph-apparatus	G. Little	4, 532
Thrashing-machine	H. Hanna	4, 245
Ticket punch, Registering	A. D. Hoffman	4, 246
Tool-holder	W. W. Draper	4, 333
Tools, edge and other, Casting	Collins Company	4, 537
Tools, edge and other, Casting	Collins Company	4, 538
Trellis, Grape and vine	T. G. Yeomans	4, 469
Trip-hammer	J. C. Butterfield and J. Hay	4, 470
Truck, Car	C. D. Tinsdale	4, 378
Truck, Railway-car	W. Pettit	4, 238
Truss, Spring	J. W. Riggs	4, 589
Tube-well	S. L. Bignall	4, 604
U.		
Upholstery, Mode of securing springs in	W. Wright	4, 286
V.		
Valve, Automatic regulating	B. Holly	4, 396
Valve, Piston steam	R. C. Gray and W. B. Brittingham	4, 319
Valve, Pump	W. H. Pollard	4, 356
Vapor-burner and lamp-post, Combined	B. D. Evans	4, 342
Vegetable and animal substances, Treating, so as to dry and preserve them	C. Alden	4, 592
Vehicles, Adjustable metallic dasher for	G. M. Peters	4, 408
Ventilator	M. E. Mead	4, 255
Ventilator, Railroad-car	M. T. Hitchcock	4, 494
Vise	J. Simpson	4, 637
W.		
Wagons, End-gate for	J. L. Strope	4, 631
Wagon-tongue support	W. Beers	4, 490
Watch, Stem-winding	J. Jürgensen	4, 334
Washing-machine	S. W. Palmer and C. Coventry	4, 497
Water-meters, Molding propeller for (Division B)	National Meter Company	4, 392
Water-meters, Screw-propeller for (Division A)	National Meter Company	4, 391

Alphabetical list of extensions.

Invention or discovery.	Name of patentee.	No.
Water-pitcher and other vessels	K. Goddard and J. P. Adams	4, 318
Weights, Pulley-attachment for raising	G. W. Gregory	4, 382
Wheelbarrow-frame	B. W. Tuthill	4, 341
Wheel, Carriage	R. W. McClelland	4, 322
Wheel for vehicles	J. R. Baird	4, 567
Wheel, Water	J. T. Case	4, 329
Wheel, Water	J. T. Case	4, 330
Wheel, Water	J. Tyler	4, 539
Whiffletree	G. and W. Gibbs	4, 647
Whip-hanger	P. F. Cooley	4, 520
Wire cloth, Machine for painting	C. H. Waters	4, 462
Wire cloth, Machine for painting	C. H. Waters	4, 463
Wire ferrules, Machine for making	H. O. Lothrop	4, 431
Wood-bending machine	H. McDonald	4, 614
Wood-bending machine	H. McDonald	4, 548
Wood-bending machine	S. Kingsland	4, 553
Wood, Machine for bending	C. Prudden	4, 357
Wood, Preserving	J. E. Siebel	4, 550
Wood, Reducing, to paper-pulp	H. Voelter	4, 418
Wrench	A. G. Coes	4, 450
Wringer, Clothes	R. B. Huggin	4, 638
Wringer, Clothes	W. Whitney	4, 570
Wringer, Clothes	C. A. Cummings and F. M. Swallow	4, 574

EXTENSIONS.

A.		
Abdominal supporter	(Reissue 493)	J. M. Milligan
Acid, Sulphuric	(Reissues 502, 604)	A. Monnier
Apples, Machine for paring		D. H. Whittemore
Apples, Machine for paring and slicing		D. H. Whittemore
Axes, Machine for making		C. F. Hutchins
B.		
Bedstead-fastening		A. M. Rodefer
Billiard-table cushions	(Reissues 7,998, 2,510)	H. W. Collender
Blind-fastening	(Reissue 3,392)	H. Vansands
Blind-slats, Machine for cutting tenons on		S. C. Ellis
Bobbins for roving and slubbing		I. Hayden
Bolts, Machine for threading	(Reissue 656)	W. Sellers
Books, Binding		A. H. Rowand
Boxes, &c., Method of joining		J. Stimpson
Boxes, Machine for cutting pasteboard for		F. N. Clarke
Box, Passenger-fare	(Reissues 550, 4,240)	J. B. Slawson
Bridges, Iron truss-frame for		F. C. Lowthorp
Bridge for piano-fortes, Metallic		G. H. Hulskamp
C.		
Camera, Solar	(Reissue 2,311)	D. A. Woodward
Candle-snuffers		O. W. Stow and A. Barnes
Carriage-prop	(Reissue 1,331)	C. Thomas
Centering-machine		E. F. Whiton
Chain-machine	(Reissue 928)	L. Toune
Chair for invalids		J. G. Holmes
Corn-husker		E. F. French
Cotton-gin		D. Pratt
Cotton, Long trunks for cleaning		I. Hayden
Cotton-seed, Machines for hulling		W. R. Fee
Cotton, wool, and other fibrous materials, Machine for clearing and separating		I. Hayden
Crib for horses	(Reissue 1,300)	H. Eddy
Cultivator		C. H. Sayre
Cultivator-teeth		J. P. Cramer
Cutting and bending sheet-metal, Machine for		E. Savage
E.		
Eaves-troughs, Apparatus for suspending		J. A. Watrous
Edge-planers for shoemakers	(Reissue 4,454)	I. A. Dunham
F.		
Fire-alarm telegraph for cities, Electro-magnetic		W. F. Channing and M. G. Farmer
Fire-arm, Breech-loading	(Reissues 1,592, 3,798, 3,860)	W. C. Hicks
Fire-arms, Accelerating		A. S. Lyman

Alphabetical list of extensions—Continued.

Invention or discovery.	Name of patentee.	No.
Fly-frame of printing-presses, Mode of operating	R. M. Hoe	18, 640
Furnaces, Cupola and other . . . (Reissues 1,403, 1,843) . .	P. W. Mackenzie	18, 051
G.		
Gaseous bodies, Machinery for compressing	W. A. Royce	17, 394
Gas-tubes, Extension	C. Monson	18, 154
Gauges, Steam-pressure	C. A. Eastman	17, 560
Generator, Gas	A. M. Giles	16, 830
Generators, Gas	J. Butler	18, 184
Generator, Steam	F. Lat'a	18, 460
Gore-cloth, Elastic (Reissue 492)	E. Winslow	17, 950
Grinding and polishing machine	D. Lovejoy and E. S. Butterfield	18, 509
H.		
Hand-stamp	T. J. Robertson	18, 249
Harrow (Reissue 45)	D. W. Shares	16, 498
Harrow (Reissue 804)	S. S. Hogle	16, 866
Harvester	E. D. Buckman and S. A. Sisson	16, 957
Harvester (Reissues 548, 3,393)	C. Crook	17, 205
Harvester (Reissues 548, 3,394)	C. Crook	17, 205
Harvester	W. T. B. Read	17, 451
Harvester (Reissue 3,524.) (Division A)	J. P. Manny	17, 779
Harvester (Reissue 3,525.) (Division B)	J. P. Manny	17, 779
Harvester (Reissue 3,526.) (Division C)	J. P. Manny	17, 779
Harvester (Reissue 3,520.) (Division A)	J. P. Manny	17, 798
Harvester (Reissue 3,581.) (Division B)	J. P. Manny	17, 798
Harvester (Reissue 1,775)	H. Willard and R. Ross	18, 562
Harvester (Reissue 1,776)	H. Willard and R. Ross	18, 562
Harvester (Reissue 1,780)	H. Willard and R. Ross	18, 562
Harvester (Reissue 1,781)	H. Willard and R. Ross	18, 562
Harvesters, Raking-apparatus for	J. W. Budd	18, 009
Harvesting-machines	G. Esterly	16, 873
Hat-bodies, Forming	I. Gill	16, 426
Hay-presses, &c., Securing the doors of	C. Martratt	17, 108
Hinge	J. D. Browne	16, 678
Hook, Whiffletree	A. M. Cooley	17, 668
Horse-power	G. E. Burt	18, 232
Horse-rakes (Reissue 3,303)	J. J. Squire	16, 318
Horse-shoes, Machine for making . . . (Reissue 1,998)	J. A. and I. T. Burden	17, 665
Hydrant	G. P. Perrine and J. E. Boyle	17, 632
I.		
Iron, Manufacture of	W. Kelly	17, 628
Iron spoons (Reissue 4,506)	G. I. Mix	18, 513
Ivory, Factitious	W. M. Welling	17, 949
K.		
Keeper for right and left hand door-locks	C. Adams	16, 676
L.		
Lathe for turning irregular forms, Automatic	W. D. Sloan	16, 936
Lathing and plastering, Mode of	J. G. Vaughan	16, 425
Lime and other fertilizers, Machine for spreading	P. Seymour	18, 774
Lock (Reissue 62)	L. F. Munger	17, 804
Locomotive furnaces	S. A. Bolster	18, 883
Loom	B. G. Dawley	16, 306
M.		
Mechanical movements for sewing and other machinery. (Reissue 4,583.)	J. Hanley	18, 845
Melodeon (Reissue 1,658)	S. A. Jewett	18, 399
Meter, Fluid	J. Cochrane	16, 945
Mill for cleaning castings	H. Remsen	17, 012
Mill, Sawing (Reissue 542)	W. M. Ferry	17, 829
Mowing-machine (Reissue 904)	G. C. Dolph	18, 141
Mowing-machine	J. P. Manny	18, 510
Mowing-machines (Reissues 831, 1,007)	E. Ball	18, 788
Mowing-machines (Reissues 831, 1,008)	E. Ball	18, 788
Mowing-machines (Reissues 831, 1,009)	E. Ball	18, 788
Mowing-machines (Reissues 832, 1,010)	E. Ball	18, 788
Mowing-machines (Reissues 832, 1,011)	E. Ball	18, 788
Mowing-machines (Reissues 832, 1,012)	E. Ball	18, 788
N.		
Nail-plate feeding-machine (Reissue 2,301)	J. C. Gould	17, 273

Alphabetical list of extensions—Continued.

Invention or discovery.	Name of patentee.	No.
O.		
Ore, Separating	T. J. Chubb	18, 038
P.		
Paper bags, Machine for making..... (Reissue 920) ..	R. Rice	17, 184
Picker-sawing machines	J. Haw	17, 626
Pile for rolling beams	J. Griffin	18, 738
Pillars for clock-movements, Machine for turning. (Reissue 3,489.)	W. H. Nettleton, C. Raymond, and A. Hatch.	18, 661
Planing-machines, Arrangement of feed-rollers for....	B. Fitts	17, 963
Planter, Cotton-seed	T. T. White	18, 482
Plow	J. S. Hall	17, 430
Power-loom for weaving wire cloth	E. B. Bigelow	18, 320
Presses, Cotton and hay	G. W. Penniston	18, 766
Printing in colors, Method of	R. Croome	17, 319
Pump	J. D. West	18, 309
Pumping apparatus, Steam	G. H. Corliss	17, 423
R.		
Railroad-cars, Steam-brakes for	T. E. Sickles	16, 884
Railroad platform-scales, Arrangement of	S. G. Lewis	16, 286
Rakes for harvesters, Self-acting	S. T. Lamb	17, 685
Rakes to grain-harvesters	J. Atkins	9, 479
Rendering joints steam-tight.....	M. J. Kelsey	17, 855
Retort-covers	J. R. Floyd	17, 854
Rice, Machine for cleaning	W. Ager	18, 177
Rock-channeling machine. (Reissue 3,368.) (Divis- ion A.)	W. Plumer	18, 352
Rock-channeling machine. (Reissue 3,369.) (Divis- ion B.)	W. Plumer	18, 352
Roofs, Fastening sheet-metal on	A. Johnson	17, 331
Roofs, metallic, Machine for seaming .. (Reissue 883) ..	J. D. Prouty	17, 874
S.		
Safety-lamp	W. Pratt	18, 704
Sawing-machines, Feeding lumber laterally in	S. R. Smith	16, 454
Saws, Grinding	D. S. Nippes	17, 110
Scales, Platform	F. M. Strong and T. Ross	14, 119
Scales, Platform	T. Fairbanks	16, 381
Seeding-machine	L. B. and H. A. Myers	16, 772
Seeding-machine	A. Franklin	18, 579
Sewing-machine	A. F. Johnson	16, 387
Sewing-machine	J. E. A. Gibbs	17, 427
Sewing-machine	E. H. Smith	18, 605
Shade cord, Weaving	T. Nelson	16, 248
Shears for cutting metal	T. F. Taft	18, 025
Shears, Vibrating	J. Toulmin	18, 065
Ships, Compound capstan for	C. Perley	17, 940
Shoe-binding leather, Process of manufacturing	E. L. Norton	17, 445
Squares, Metallic	S. Darling	18, 327
Syringe, Enema	H. E. and C. H. Davidson	16, 956
T.		
Truss	J. W. Riggs	18, 708
Type, Machine for composing and distributing	W. H. Houston	16, 947
Type setting and distributing machine. (Reissue 3,572.)	H. W. Alden	18, 175
V.		
Valves of steam-engines, Operating	S. R. Wilmot	16, 688
Veneers, Cutting from the log	J. H. Goodell	16, 308
Veneers, Machine for cutting	P. Cook	16, 529
W.		
Wagon	E. Huson	16, 648
Wagons, Cast seamless thimble-skeins for. (Reissues 575, 1,238.)	J. Benedict	16, 638
Wagons, Mode of casting seamless skeins for. (Reis- sues 575, 1,229.)	J. Benedict	16, 688
Wheel, Carriage	J. D. Sarven	17, 520
Wheel, Water	S. Reynolds	16, 881
Wooden boxes, Machine for turning	A. S. Newton	18, 646
Wood, Machine for splitting	W. L. Williams	17, 061

DISCLAIMERS.

Invention or discovery.	Name of patentee.	No.
Feeding lumber laterally in sawing-machines. Filed January 23, 1871. Second claim of specification disclaimed.	S. R. Smith.....	16,454
Platform-scales. Filed January 10, 1871. Second and third claims of specification disclaimed.	F. M. Strong and T. Ross.....	14,119
Solar camera. Filed February 23, 1871.....	D. A. Woodward. (<i>See</i> March 7).....	16,700
Wood, Machine for splitting. Filed April 14, 1871. Fourth claim disclaimed.	W. L. Williams. (<i>See</i> April 25).....	17,061
Harvester. Filed April 20, 1871. First claim of specification disclaimed.	C. Crook. (<i>See</i> May 2).....	17,205
Lantern. Filed April 29, 1871.....	W. Westlake, J. F. Dane, and J. P. Covert. (<i>See</i> May 16.)	40,520
Roofing, &c., Composition for. Filed May 8, 1871.....	Plastic Slate Roofing Joint Stock Company, New York. (<i>See</i> May 16.)	46,495
Sawing thin boards, &c., Machines for. Filed May 20, 1871.	J. Lagowitz, E. Peck, and G. J. Bogert. (<i>See</i> June 13.)	10,965
Steam pumping apparatus. Filed May 27, 1871.....	G. H. Corliss. (<i>See</i> June 13).....	17,423

C

101919





SMITHSONIAN INSTITUTION LIBRARIES



3 9088 01585 2569